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Jan. 23 Colorado Desert, Riverside + Imperial Cos., Calif.

This afternoon at 1355 Dee Munro + I left UCR, headed for the algodones Dunes. At 1505 we stopped to see Lloyd Tevis at Rancho Mirage, and to collect some sand at his place for Dr. Newell. We left his place at 1610 and drove past our campsite in the dunes at about 1845. We drove on through Glamis to the Ogilby - Palo Verde road. The 12 miles from Glamis to this road is now well paved. It should be terrific for night collecting later in the season, but we didn't see any reptiles on it tonight. One kit fox was seen, however. We had a good look at it in the lights of the car. We pulled into our campsite at 2000.

Minimum temp. tonight - 41° F.

Jan. 24 We arose at 0900. After breakfast we drove to the top of the big dune where I took some pictures. At 0930 we saw the first lizards (Uma). We returned to our campsite and began looking for lizards at 1000. The first large Uma was seen at 1020. At 1030 we took our soil samples at station II (depression between dunes). at 1100 we took soil samples from station I in the Yuma Dunes. This station is at the top of a large dune. A white stake was driven into the sand to mark each station location.

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Jan. 24 Colorado Desert, Riverside & Imperial Cos., Calif.

Both stations are about 300-400 yards due south of the campsite. The stake for station I can be seen from the campsite. The data from each station are as follows:

Station I	(Temp. °C.)	(water content % by wt.)
sample 1 – surface	27.9	
" 2 – 3" deep	16.5	
" 3 – 6" "	14.0	
" 4 – 9" "	15.8	
" 5 – 12" "	16.8	
" 6 – 18" "	17.4	

Time collected – 1100

Station II		
	Depth	Temp. (°C.) (water content % by wt.)
Sample 1 –	surface	30.4
" 2 –	3"	13.5
" 3 –	6"	12.2
" 4 –	9"	12.5
" 5 –	12"	13.8
" 6 –	18"	16.0

Time collected – 1030

While walking through the dunes at 1300 Dee took a soil surface temp. on the south-facing slope of a dune while I took a comparable temp. on a north-facing slope of a dune just across a narrow depression from Dee (about 50 feet away). My temp. was 27.4°C. whereas his reading was 50.0°C., a

Jan. 24 Colorado Desert, Imperial & Riverside Cos., Calif.
difference of 22.6°C. We stopped looking for lizards at 1410. Uma notata was the only species seen today. A total of 12 were caught, but no full grown adults. Maximum temp. today was 82° F. We left the campsite at 1430, then drove in to Harpers Well to check on road conditions. There are some rather deep ravines to cross, but we made it all right with the 1958 Chevrolet station wagon (#240) we were in. We leveled a few spots in the road with the car frame, though. After stopping to eat at the Desert Dream Cafe, we drove through Indio until we saw the sign, La Quinta - 6. We turned left and followed Avenue 40, which is 6.2 miles long from its eastern end to Rio del Sol Road. We followed a side road to the north, 4.1 miles east of Rio del Sol Road, which is 1.3 miles long. It also looks good for night collecting. Then we drove through 1000 Palms toward 1000 Palms Oasis. Just after the pavement ends, there is a road beside the power line that is paved. We followed this east for 9 power poles to the road to Pushawalla Canyon, and then beyond to Dillon Road. The power line road continues east beyond Dillon Road,

Jan. 24

Colorado Desert, Riverside Co., Calif. but we stopped at that point. It crosses Dillon Road 2.3 miles north of the junction of Highway 60 & Dillon Road. 6.8 miles from the same junction, we turned ~~north~~ on a road up Bendoo Canyon. This road is paved for 3.2 miles, and ranges in altitude from 750 ft. to 1640 ft. (paved portion). It is in a deep canyon & looks like an excellent area for night collecting. 3.7 miles further west we drove up a road labelled Happy Valley. This road is paved for 2 miles, and ranges in elevation from 1260 ft. to 1700 ft. At this road junction, it is 18 miles to Indio, 22 miles to Garnet. We followed Dillon road for another 16.6 miles, then turned south on Mountain View Road to reach our campsite within view of "Granddaddy Dune". We went to bed at 2330. The minimum temp. tonight was 44°F. The altitude reads 670 ft. at the campsite.

Jan. 25

We arose this morning at 0800. After breakfast we took our soil samples at Station III on Granddaddy Dune. A black stake is in the ground at the location of the sampling station, and a rock cairn was erected (Sample taken at 0900.)

Jan. 25 Colorado Desert, Riverside Co., Calif. about 70 feet from the old highway on the south-west side. A string of rocks at the cairn point directly at the sampling site. The results were: Station III.

	Depth	Temp (°C.)	H20 content % by wt.
Sample 1 –	surface	19.4	
" 2 –	3"	11.4	
" 3 –	6"	11.1	
" 4 –	9"	11.0	
" 5 –	12"	13.2	
" 6 –	18"	14.8	

Some rain fell in this area on Jan. 6 (0.37" at Rancho Mirage), and this moisture was quite evident in the soil sample. The surface was quite dry, but from 3" down to 10"-11" the soil was really moist. At 12" depth, however, no moisture was evident. There was a sharp boundary between wet & dry sand at that depth. Down to 18" there was no indication of moist sand. This sampling station is about 1/2 way from the bottom to the top of the growth of Larrea divericata. The altitude at Granddaddy Dune was 560'. At this time the relative humidity was 35%, and no wind was blowing. We finished the soil sampling at 0930,

Jan. 25 Colorado Desert, Riverside Co., Calif.
and started looking for lizards, even though the temp. indicated that probably none would be out. We didn't find a trace of any lizards, so we returned to the car to wait until the temp. was higher. This occurred at 1000. However, we decided to investigate the paved road that runs along the power line between 1000 Palms and Granddaddy Dune. It seems to offer good possibilities for night collecting later in the season. There is a branch of the road that leaves the power line and goes to near the top of that range of hills. This road is 2.7 miles long and reaches an altitude of 1550 ft. There is a wide area at the top on which to park. At this location the only perennial vegetation to be seen is some Franseria dumosa and a few very small Larrea divaricata. The rest of the area is covered with the dried remains of last year's annuals — mainly Baraea carescens. At this point we saw or captured several Uta stansburiana, 1 Callisaurus draconoides juvenal, & 1 Cnemidophorus tigris adult. We returned to Granddaddy Dune at 1315 and began looking for Uma again.

Jan. 25 — Colorado Desert, Riverside Co., Calif. The first Uma inornata we saw was at 1330. At this time, the air temp. was 24°C., soil surface temp. was 30.5°C. We saw only one other one (both immature) before we left the area at 1400. We returned to UCR, arriving there at 1517, after travelling a total of 482 miles.

Jan. 28 — Mojave Desert, San Bernardino Co., Calif. This morning at 0730, Frank Aubrey, Mark Kohn, Fritz Zabst + I left UCR. We drove to the Phelan area to look for prospective Sceloporus magister sites. An area just off highway 138, 2 mi. S.W. of Phelan looks good, but is on some rather steep ground. Beekly Road, just west of this spot, however, looked even better. There is also an excellent stand of Larrea divaricata north of the Joshua tree area on the same road. After surveying this area sufficiently, we drove north until we reached the Palmdale Road. We turned right on it and drove to the new freeway near Victorville. We drove on it to Barstow, then on highway 66 to the Kelbaker Road, 5 mi. E. of Amboy. We drove north on this road to the granite hts., about 20 miles S.

Jan. 28

Mojave Desert, San Bernardino Co., Calif.
of Kelso. We drove into a large amphitheater-like area on the S.E. side of the mountains, looking for Cottonwood Springs. This was a very attractive area that is apparently used a good deal for cattle grazing. We didn't find Cottonwood Springs, but we saw a number of Uta stansburiana. However, we were unable to catch any of them. We were there from 1435 to 1525. We continued north, looking for a road into the Kelso Dunes. We missed the road Frank Vasek & I used last spring, so we drove on into Kelso, then turned left along the railroad tracks on a road that the map indicated would reach the dunes. However, 4 miles W. of Kelso the road became impassable any further, so we camped for the night at 1745. During the night, the minimum temp. was 28°F. We drove 252 miles today.

at 1525
(waist high)
air temp. - 11.8°C
(1 cm) air - 13.8°C
surface temp. - 14.5°C

Jan. 29

We arose at 0745, ate breakfast, & broke camp at 0945. We drove back to Kelso to see where the nearest gas station was located (it turned out to be Baker, 35 miles away). I talked for a few minutes with one of the employees in the Union Pacific depot, hotel, & restaurant. There are about

Jan. 29

Mojave Desert, San Bernardino Co., Calif.
75 residents of Kelso now, but it used to have a population of about 700. Diesel engines have made the difference, since the water tanks, etc. aren't needed any longer. Seven of the nine wells are capped now. All nine can produce about 350 gallons per minute each. There is a reservoir at Kelso that can hold over 1 million gallons, but it isn't used any longer. The hotel and restaurant are open 24 hours a day to handle railroad crews. The building, built in 1923, is in much better condition than the rest of the town. We left Kelso + drove north on Kelbaker Road toward Baker. About 22 miles N.W. of Kelso we stopped to collect some flowers of Dasyneis arborea. It was situated at the end of a lava flow that stopped at the edge of the road. We also collected two other plants in flower at this spot, which we haven't been able to identify yet. In addition, about a dozen Yeta stansburiana were seen, several of which were collected. After refueling at Baker, we drove east on highway 91 for 25 miles until we reached the road to Cima. We turned right off the highway and

Jan. 29 Mojave Desert, San Bernardino Co., Calif. drove through extensive stands of Yucca brevifolia jaegeri. The road is unpaved pom highway 91 to Cima, but is paved pom Cima to Kelso. We returned to Kelso by way of Cima. We drove through Kelso and up to Kaiser's old Vulcan Mine. This is an iron mine that operated during the war (WW II), but has been closed since. It is 3800 feet in elevation in the Providence Mts. We reached the mine at 1730 and established camp inside the cement foundation for one of the former mine buildings. This mine is 9½ mi. S.E. of Kelso, and has a paved road leading to it. The minimum temp. tonight was 34°F. We drove a total of 116 miles today.

Jan. 30 This morning we arose at 0730, ate a little breakfast, collected a couple of flowering plants, then broke camp at 0930. We drove into Kelso for a steak breakfast at the restaurant, then drove [redacted] south on Kelbaker Road about 10 miles, where we found the road leading to the Kelso Dunes. We drove in just past the second corral and parked. Then we began looking for Uma scoparia. We found a couple, and 1 immature

Jan. 30

Mojave Desert, San Bernardino Co., Calif.
Callisaurus draconoides buried in the sand (at 1215) where we took sand samples for moisture content. The sand data are as follows: (code-K)

air temp. (waist high) — 15°C.
" " (1 cm) — 17°C.
sample 1 — soil surface — 27°C.
" 2 — 3" deep — 11°C.
" 3 — 6" " — 8.6°C.
" 4 — 9" " — 8.9°C.
" 5 — 12" " — 9.4°C.
" 6 — 18" " — 10.9°C.

One Uta stansburiana was seen running across the road at 1325 as we were driving from the dunes back to Kelbaker Road. We drove into Amboy to refuel, then travelled east on highway 66 to the road to Cadiz (12 miles east of Amboy). We drove through Cadiz, and were about 4 miles north of Chubbuck when we found a road leading to the sand dunes on the eastern shore of Cadiz Dry Lake. We drove on this side road for 5 miles until we reached the dunes. There were a couple of pretty rough spots to cross, but that 1958 Chev. station wagon (#240) never missed a beat. The wind was blowing rather hard at these dunes, and as it was quite cool by this

Jan. 30

Mojave Desert, San Bernardino Co., Calif.
time in the afternoon, no Uma scoparia were seen. We returned to the road from Cadiz to Rice, and followed it south until it joined the paved road that runs from Rice to Desert Center. We stopped at the end of this dirt road (which had been pretty bad, but passable) and cooked supper as it was getting dark. We then drove to Desert Center, where we bought some white gas at the Chevron station, then proceeded to Riverside via Indio. We reached UCR at 2140, after driving 307 miles today, and 675 miles on the entire trip.

Feb. 2

Colorado Desert, Riverside & Imperial Cos., Calif.
Frank Aubrey & I left UCR this morning at 0815. We drove east on highway 60 to Garnet, then along the old highway to Granddaddy Dune. Frank saw a Uma from the car, but we could find no trace of it when we reached the spot. No tracks were evident, indicating these animals still are not very active at this location. We then drove to Lloyd Tevis' place in Rancho Mirage & loaded some sand for Dave Newell. Next we proceeded to Palm Desert to see if plainopsylas had returned to Deep Canyon area.

Feb. 2

Colorado Desert, Riverside + Imperial Cos., Calif.
We were in the Deep Canyon area from approximately 1200 to 1410. During that time we saw five phainopepla (all north of our future research area) — 4 ♀ and 1 ♂, 1 mockingbird, 1 verdin, 2 house finches, and 1 blue-gray gnatcatcher. None of these were seen on the future refuge, however. One Leta stansburiana was captured just north of the gate at the research area entrance. No other reptiles were seen. Most of the vegetation on the research area looks like it is suffering from the lack of rain this season, although a couple of plants were seen in bloom. The entrance to the area is 4.4 miles S. of the junction of highway 111 and Portola Ave., and 2.2 miles from the point where the road entering Deep Canyon joins Portola Ave. Our next stop was in the sand dunes just north of Palm Desert. This area looks very good for Uma inornata, etc., but no reptiles or reptile tracks were seen. Then we drove down Avenue 40 to highway 60, through Indio + down highway 99 to the new development known as Salton City Air Park Estates. We drove into the area, then as far S.W. as possible, where a dirt road left the subdivision and

Feb. 2 Colorado Desert, Riverside & Imperial Cos., Calif. proceeded S.W. toward a power line. The road along the powerline goes right past Lone Barchan in Tule Arroyo. This walking dune is 4 miles from highway 99 by the route just described. The wind was blowing fairly hard while we were there, making the sand cut like a knife when it hit you. The areas on all sides of this dune are very arid. Some beetles (6) were dug out of the sand of the dune. These were placed in bottle H to take back to Riverside to see if Lema notata will eat them. We feel Lema must eat them to be able to survive in this very desolate location, and we know from other investigators that Lema are present on this dune. We left the dune area at sundown and drove south to go around the southern end of the Salton Sea. I wanted to locate the swamp Eugene Cardiff told me was east of Niland. However, we were unable to find it in the dark, so we drove north on highway 111 to Mecca. Then we turned east on highway 195 and camped just east of the canal before the road enters Box Canyon. We reached this spot at 2130, after driving 266 miles today. The minimum temp. tonight is 43°F. page 59.)
(Beetles are Eusattus productus - see journal for 5/26/59.)

Feb. 3

Colorado Desert, Riverside Co., Calif.

We arose at 0900, ate breakfast, and left our campsite at 1000. We drove through Box Canyon on highway 195. Near the top of the grade we stopped to look for phainopepla, but had little luck finding them. Only 2 were seen in all the area we searched, which was an extensive region of palo verde, ironwood, etc. with abundant mistletoe. Numerous phainopepla were seen here at the end of last March, so the region is used by these birds. However, they seem not to have arrived in any numbers yet this year. When we finished looking for these birds, we drove east through Desert Center to try to find a road into Palen or Ford Dry Lakes. We spent all afternoon without success. Only one road was followed trying to reach Ford Dry Lake. This road ended at a Southern Calif. Gas Co. pumping station. However, we followed several roads trying to reach Palen Dry Lake. It seems to have much more extensive sand dunes than Ford. Two of these roads ended where some of the desert is now being converted to irrigated farmland. We finally returned to Desert Center, after collecting about 10 species of plants in flower 10 miles east of Desert Center. We followed the

Feb. 3

Colorado Desert, Riverside Co., Calif.
Rice - Desert Center road about 10 miles north of Desert Center, then turned right (east) on a road that looked like it would reach Palen Dry Lake. However, about 1/4 mile from the highway we got the station wagon stuck in a dry wash. The sun went down as we finally dug it out, so we got on high ground and camped for the night. We made camp at 1730, after driving a total of 111 miles. The minimum air temp. tonight is 34°F. Not a reptile was seen all day, although we didn't take any special pains to find any.

Feb. 4

Colorado Desert, Riverside & Imperial Cos, Calif.
We arose at 0730, fixed breakfast, and left the campsite at 0900. We checked some sandy areas 8 miles north of our campsite, but the soil was too hard packed for Uma. We drove on through Rice, then turned south toward Midland. Three miles south of Rice we stopped to look over some rather extensive sandy areas. One juvenal Uma scoparia was seen and captured. Few tracks of other Uma were seen, however. We drove then through Midland, and stopped to collect some wild flowers 6 mi. S.E. of Midland. Then we drove through Blythe, turned right

Feb. 4 Colorado Desert, Riverside + Imperial Cos., Calif. onto highway 60-70, and drove to Ford Dry Lake. The turn-off into the dry lake that we constructed is 21 miles west of Blythe (27 miles east of Desert Center). We marked the site with a large board stuck in a creosote bush on the north side of the road. On the south side of the highway, about 150 yards farther east, is a sign reading "Palo Verde - good cafes, cocktail bar." There is also a cable crossing sign at that point, and a small white building about 150 yards south of the highway. The road to Wiley Well leaves the highway 3.3 miles east of the turn-off. One young Uma scoparia was seen when Frank dug it out of a dune. It was about 6" beneath the surface. However, we were unable to catch it. There were quite a few tracks on the surface at this location. This is the easiest place to get to to catch Uma scoparia that we have seen so far. We then drove to Blythe, through Ripley and Palo Verde, on the Palo Verde - Ogilby Road. This road is quite rough for a considerable distance (it is 30 miles of unpaved road to the Glamis turn-off). We drove through Glamis + pulled into our usual campsite in the Algodones Dunes at 1850, after a trip

Feb. 4 Colorado Desert, Riverside & Imperial Cos., Calif. of 189 miles today. The road from Palo Verde to Glamis should be terrific for night collecting as soon as the last 30 miles is paved, since the road goes through sand dunes, creosote bush flats, barren rocky flats, ironwood filled washes, and rocky mountain canyons in the Palo Verde Mts. The minimum temp. tonight is 44 °F.

Feb. 5 We arose at 0700 (because gravel trucks awoke us at 0530), ate breakfast, then collected soil samples at our two stations in the Yuma Dunes. When we left the station wagon at 0830, the air temp. was 54°F., there was no wind, and the relative humidity was 70%. Soil was collected at station I (top of dune) at 0845. The results were as follows:

sample 1 –	surface	16 °C.	(air temp. – 12 °C.)
" 2 –	3" deep	11.2 °C.	
" 3 –	6" "	13.7 °C.	
" 4 –	9" "	15.2 °C.	
" 5 –	12" "	15.8 °C.	
" 6 –	18" "	17.0 °C.	

This soil showed visible moisture at 12". The surface temp. was 19.4°C. when the sample was completed at 0905.

The results at station II (in a hollow between some large dunes) were as follows: (collected at 0910)

Feb. 5

Colorado Desert, Riverside & Imperial Cos., Calif.

sample	1 -	surface	21°C.
"	2 -	3" depth	10.9°C.
"	3 -	6" "	13°C.
"	4 -	9" "	14°C.
"	5 -	12" "	14.8°C.
"	6 -	18" "	15.6°C.

Moist soil was found approximately 4½" below the surface. The soil surface temp. was 23°C. when the sampling was completed at 0925. We started looking for Uma notata in earnest at 0950. The first Uma seen (a juvenal) was at 1000. At this time, the air temp. was 17.5°C., soil surface temp. was 26.6°C., and the air temp. 1cm. above the surface was 18.8°C. We saw rather large numbers of young Uma, but very few adults. Based on tracks on the sand, few adults are active yet. We stopped looking at 1220. At 1245 we left the campsite and drove through Brawley, Westmoreland, Truckhaven, etc. to Valerie Jean's. There we turned east on highway 195 and drove through Mecca and Box Canyon in the Mecca Hills. Then we entered Joshua Tree National Monument at the Cottonwood Springs entrance. The road through Joshua Tree is paved for its entire 43 mile distance

Feb. 5 Mojave Desert,
Colorado Desert, Riverside & San Bernardino Cos., Calif.
except for a few spots a few hundred yards long each. We drove through the eastern edge of 29 Palms, then turned east on the road to Amboy. We drove until we reached the dirt road that goes to Dale Dry Lake. This is a good road that by-passes the chemical plant on the edge of the lake. This road intercepts another road that goes south of the dunes on Dale Dry Lake (this roads runs from Rice to 29 Palms). We found abundant tracks of Uma scoparia in these dunes, but saw no lizards because it was already sundown. This should be a very good location for obtaining specimens of Uma scoparia. We left the area at 1730. This time we stayed on the road that goes from Rice to 29 Palms (called Dale Road at this point), and started west toward 29 Palms. The collecting site we plan to use is 1.8 miles east of our prospective camp-site, and 3.4 miles east of the end of the pavement (our campsite is 1.6 miles east of pavement end). (I failed to mention that several annuals had sprouted in the dunes at Dale, and moisture was found in the soil at a depth of about 4 inches.) Dale Road

Feb. 5

Mojave Desert, San Bernardino Co., Calif.
becomes Baseline highway where Gold Crown Road intercepts it (6.9 miles west of pavement end). This is a road that enters Joshua Tree through Pinto Basin. Baseline highway is called 29 Palms Highway where it is intersected by Utah Trail (the paved road through Joshua Tree). The collecting site is 25 miles east of this intersection. There are 21½ miles of pavement between this intersection and the collecting site, which may be rather good for night collecting. We reached 29 Palms at 1815 and UCR at 2005, after driving 306 miles today. Thus, we drove 877 miles on this trip, and 1,552 miles on the 2 trips between semesters. Including the collecting trip during finals, 2,034 miles were travelled during this 2 week period.

Feb. 18

Santa Rosa Mts., Riverside Co., Calif.
This morning at 0730 I left UCR for Rancho Mirage to meet Lloyd Tevis, Jr. of Calif. Institute of Technology, William Drake, western representative for Nature Conservancy, and Richard Weaver, bighorn sheep investigator for Calif. Div. of Fish & Game. We spent the morning hiking up Cat Canyon (south of Palm Desert) to look at some bighorn sheep

Feb. 18

Santa Rosa MTs., Riverside Co., Calif. watering holes. There was some excellent habitat for Uta mearnsi, but none were seen today, even though the weather was calm and clear. However, some Uta stansburiana were seen at 1215. No other reptiles were seen all day. There is a beautiful stand of native palms in a grove at the upper end of Cat Canyon. The canyon is little marked by the hand of man yet, although a number of "jackrabbit cabins" have been built around the mouth of the canyon. Later we hiked to an artificial pool in Carizzo Creek drainage that has been developed for bighorn. No reptiles were seen here at all. I returned to UCR at 1845 after a trip of 165 miles.

Feb. 20

Dale Dry Lake, San Bernardino Co., Calif.

This morning at 0730 Frank Aubry, Charles Filippini & I left UCR for this area. We reached the collection site at 0945, a distance of 108 miles from UCR, which I shall call station IV for our soil sampling work. The actual soil sampling site is 600 feet N.E. of the intersection of the 29 Palms - Rice road (called Dale Road), the road through Dale Dry Lake past the chemical plant, and the road to the Iron age Mine.

Feb. 20 Dale Dry Lake, San Bernardino Co., Calif. This site is at the end of the paved road from 29 Palms. A metal stake is in the ground at the site, a hollow between two low dunes. This site is 22 miles E. of 29 Palms. (We decided we didn't need to go as far east as we originally thought.) We gathered our soil samples, then ate lunch, and finally began looking for Uma scoparia in earnest at 1130. We stopped looking at 1315 because we had captured 8 specimens by this time (1 was released because of its size), and we wanted to obtain samples at station III (1000 Palms). (The young one that was released was captured at 1200.) We returned to 29 Palms, then drove through Joshua Tree National Monument to Highway 60-70, where we turned west & drove through Indio to 1000 Palms. We parked east of "Granddaddy Dune" at 1530 and began immediately to look for Uma inornata. We quit looking at 1650, then obtained the necessary soil sample at station III. We reached UCR at 1835 after a trip of 271 miles. During this time we caught 2 of the largest Uma I have seen (1 Uma scoparia ♂ + 1 Uma inornata ♂).

Feb. 24 UCR Deep Canyon D.R.S., Riverside Co., Calif.

This afternoon Mrs. Philip L. Boyd (one of the Regents of the Univ. of Calif.), Dr. Harry Wellman (Vice President of the University of Calif.), Dr. Herman Spieth (Chancellor of UCR), Dr. Dean Parker (Chairman of Division of Life Sciences, UCR), Lloyd Tevis (Calif. Tech. biologist), and I went into our Deep Canyon Desert Research Station to see what should be done to develop it. We found tracks of vehicles of presumably commercial nurserymen that have carried out numerous ocotillo and barrel cacti from the area. We plan to lock the gate at the entrance to our area immediately. Mrs. Boyd said the area now belongs to the Univ. of Calif., since the Regents accepted his deed at the last Regent's meeting (February 20). Although the afternoon was reasonably warm, I saw only 3 lizards active. All of these appeared to be Uta stansburiana, but I couldn't tell for sure in any case. Everything looks quite dry in the area. No water is running in either Deep Canyon or Coyote Canyon, nor does there appear to have been any in recent times. These stream beds are dry several inches down.

March 3 2 mi. S. of UCR campus, Riverside Co., Calif.

This afternoon at 1245 Frank Aubrey + I started out to collect our monthly sample of Sceloporus orcutti at this location. The sky was clear with a very slight breeze blowing. At this time, the following temps. were recorded:

air temp (30") — 27.5°C.
" " (1cm) — 28.4°C.
soil surface temp — 42.5°C.
rock " " — 42°C.

Numerous lizards were active at this time. In the time we were out (we stopped at 1435), we captured 12 specimens of 3 specils (8 Sceloporus occidentalis, 3 Sceloporus orcutti, and 1 Uta stansburiana). A few others were seen (but not captured. The temps. were approximately the same when we quit. This is the first day this year that we have seen lizards active in any numbers.

Mar. 6 5 mi. N.W. of 1000 Palms, Riverside Co., Calif.

This morning at 0810 Frank Aubrey + I left UCR for station III. We reached Granddaddy Dune at 0930. We took our monthly soil sample, then began looking for lizards. The first lizard seen this morning was at 1005 (a young Callisaurus draconoides). Several Uma inornata were uncovered, and eight

Mar. 6

5 mi. N.W. of 1000 Palms, Riverside Co., Calif.
were captured. A young Dipsosaurus dorsalis was seen at 1215. We stopped looking for animals at 1225. We then drove to our Deep Canyon Desert Research Station to pick up the sign on the gate to have it relettered. Someone had taken down the fence at the east end of the gate and driven around the gate. We measured several of the distances from highway 111 to our gate by the cars speedometer. These measurements were as follows:

Highway 111 to corner of main road – 2.9 mi.
Corner of main road to road junction – 0.4 "
" " " to east turn – 0.3 "
East turn to gate – 1.7 "

We returned to UCR at 1800 after a trip of 177 miles.

Mar. 10

1 mi. W. of Phelan, San Bernardino Co., Calif.
Today Frank Aubrey & I left UCR at 1040 to try to get a monthly sample of Scelioporus magister. We reached this collecting site at 1140. The weather data at this time was as follows: air temp. (30") – 17°C.
" " (1cm) – 20.8°C.
soil surface temp. – 37.2°C.
tree trunk " " – 30.0°C.
wind, from north, at 3-5 mph.

Mar. 10

1 mi. W. of Phelan, San Bernardino Co., Calif. No S. magister were found, but one Sceloporus occidentalis and 20 Xantusia vigilis were captured. The latter species was very numerous and active when exposed. The S. occidentalis was so cold it didn't even try to move away. We stopped looking at 1320. After a drive north of Adelanto to check on some wild flowers for Frank Vasek, we returned to UCR, arriving at 1625. The trip covered a total of 173 miles.

Mar. 13

Dale Dry Lake, San Bernardino Co., Calif. This morning at 0730 Bobby, Frank Aubrey, & I left UCR for collecting station IV. We stopped for a few minutes 10 miles E. of Joshua Tree to collect several species of wild flowers that were in bloom, then drove on toward our destination. We stopped once more, 11 mi. E. of 29 Palms, to pick up a ♀ Phrynosoma platyrhinos on the road. We reached collecting site IV at 1025. We collected the necessary soil samples, then began looking for Uma scoparia. By 1400 we had completed our sample (besides releasing 2 adult ♂♂ and 3 immature ♂♂), as well as captured 3 Callisaurus draconoides. We drove back to 29 Palms, through Joshua

Mar. 13 — Dale Dry Lake, San Bernardino Co., Calif. Tree National Monument to Indio, then to Palm Desert where we mounted a newly lettered sign on the gate to Deep Canyon Desert Research Station. After talking a few minutes to Lloyd Tevis at Rancho Mirage, we returned to UCR, arriving at 2040, after a trip of 305 miles.

Mar. 14 — UCR campus, Riverside Co., Calif.

This morning the Zoology 146 class walked over the eastern portion of the campus, looking primarily for birds on this trip. During the morning, the following species of birds were seen:

House finch
Crow
Mockingbird
Lesser goldfinch
Bewick wren
Chinese spotted dove
Arizona hooded oriole
Song sparrow
Raven
Sparrow hawk
Brown towhee
Cooper hawk
Common goldeneye (♂)
This is the first goldeneye I have seen in southern Calif. It was
Mourning dove
Red-winged blackbird
Calif. quail
Audubon warbler
Anna's hummingbird
Red-shafted flicker
Killdeer
Sage sparrow
Calif. thrasher
Scrub jay
Say phoebe
Costa hummingbird

Mar. 14 UCR campus, Riverside Co., Calif. swimming in the small pond just east of Webber Hall. It flew out of the area when we arrived, but when we passed near the pond again about 30 minutes later, it was back swimming in the same location. We watched it from a distance for about 15 minutes. It finally climbed out of the water and walked along the shore.

Species of other animals that were seen today were:
Sylvilagus audubonii Lepus californicus
Uta stansburiana Pogonomyrmex sp.

Mar. 20 Colorado Desert, Imperial Co., Calif.
This afternoon at 1600 Frank Aubrey, the field zoology class & I left UCR for a 2½ day field trip. We reached the area just east of Brawley about 2100 and began to drive slowly for night collecting. One Coleonyx variegatus was all that was seen all evening. We drove as far as the Palo Verde - Ogilby road without seeing anything else. We stopped looking at 2390. Then we made camp on the top of the highest dune west of Glamis.

Mar. 21 We arose at 0700. after breakfast, Frank took one group of students

Mar. 21

Colorado Desert, Imperial Co., Calif. and obtained our monthly soil sample in a hollow in the dune (station II) while I took the rest of the class to the top of the dune (station I) for the same purpose. Then we collected our monthly sample of Uma notata. We caught all we could, then when we returned to the car, we released the extra ones that had been captured. We released 4 ♂♂ adult Uma notata, 4 ♂♂ immature Uma notata, 2 ♀♀ immature Uma notata, and 1 ♂ adult Urosaurus graciosa. We began looking for Uma at 0915 and stopped looking at 1305. Animals were still active at this time, however.

We then drove to Ramer Lake, a few miles north of Brawley, and looked at waterfowl and other birds that had congregated there. Species seen at this location were as follows:

Sylvilagus audubonii	Cinnamon teal
Marsh wren	Yellow-headed blackbird
Tree swallow	Red-winged "
Coot	Brewer's "
Baldpate	White-crowned sparrow
Fulvous tree duck	Audubon warbler
Shoveller	Black phoebe
Pintail	Common gallinule
Scaup	House Sparrow

Mar. 21 Colorado Desert, Imperial Co., Calif.

Ruddy duck
Ring-billed gull
Long-billed dowitcher
Red-shafted flicker
Mourning dove
House finch

After leaving Ramer Lake, we drove to Kane Spring and set up camp about 2 miles from Harpers Well. That evening Ed Conry, Rob Duncanson & I tried night collecting on Highway 78 and on the road to Split Mountain. We saw only 2 Colonyx variegatus & one young Crotalus cerastes.

Mar. 22 This morning we left the pick-up at the campsite and drove the 2 Nash Ramblers in to Harpers Well. Then we hiked to the junction of Carrizo & San Felipe Creeks. In this area we saw:

Rough-winged swallow
Citellus tereticaudus
Callisaurus draconoides
Cnemidophorus tigris
Uta stansburiana
Sylvilagus audubonii
Gambel quail
Yellowthroat
Long-billed marsh wren
Cinnamon teal
Dipodomys merriami
Sambucia or Cyprinodon
Say phoebe
Greater yellow-legs

Mar. 22 Colorado Desert, Imperial Co., Calif.
~~Common~~ Lesser nighthawk Verdin
Hummingbird (sp.?)
We watched in the large pond west of the junction of the creeks for muskrats, but failed to see any. However, there was plenty of evidence of muskrat activity in the area. We returned to the cars at 1420. The weather had been perfect until about 1330, when the wind began to blow from the west. By the time we reached the cars, considerable dirt was blowing. We returned to UCR by way of Highway 78, Warners Hot Springs (where Ed Conry's car was hit by a drunken Indian in a pick-up), Highway 79 to Hemet, Highway 74 to Romoland, then Highway 395 to Riverside. We reached UCR at 1920 after a trip (in my car) of 493 miles. All told, we saw 49 species of vertebrates on the trip.

Mar. 28 Deep Canyon region, Riverside Co., Calif.
This morning at 0535 Dean Parker, Rudy Ruibal, Frank Vasek, Carl Bovell, Tom Patterson (reporter for Riverside Press) & I left UCR for the Deep Canyon Station. Lloyd Tevis of Cal. Tech. met us on the station at 0730. He left his car about 2 miles south of the gate to the station and rode

Mar. 28

Deep Canyon region, Riverside Co., Calif. in our car to a mine near Nightingale on the Palms to Pines Highway. We left the car at 0830 and ~~started~~ hiking along the Cactus Spring Trail. After we crossed Horsethief Creek a second time, we left the trail and turned north-east toward our station. The topographic map showed relatively flat country in the area west of Sheep Mt., but we found it dissected by numerous ravines that we had to cross. Therefore, our progress was slower than we had anticipated. We found some very nice pinyon-juniper habitat on both sides of the northern boundary of that portion of San Bernardino National Forest. This area also was relatively flat. However, as we proceeded north, the land became increasingly cut by ravines. We stayed east of Deep Canyon and west of Sheep Mt. After we left the pinyon-juniper belt, we found considerable evidence of bighorn sheep activity (eaten Yucca mojavensis stalks, bedding areas, and numerous droppings). I saw much more evidence of sheep activity here than I had in Cat Canyon or in the Carrizo drainage except for one restricted locality. When Rudy

Mar. 28 — Deep Canyon region, Riverside Co., Calif. Ruibal left the rest of the group to go down a different ravine than the rest, he saw a group of seven bighorn. The last of the group reached Tevis' car at 1825. Lloyd took me back to Nightingale for our car, then I picked up the rest of the fellows in Palm Desert. We reached UCR at 2205.

Mar. 31 — 2 mi. S. of UCR campus, Riverside Co., Calif. This morning Frank Aubrey and I went to our Sceloporus collecting site. We reached the area at 0930, and caught our first animal (Sceloporus occidentalis) at 0940. Several Sceloporus orcutti (both imm. and adult) were active at this time, but we were unable to catch any the entire morning. They were extremely wary today. However, we were able to catch 5 adult Sceloporus occidentalis (4 ♀, 1 ♂) and 3 Uta stansburiana (2 ♀, 1 ♂). Nothing seemed to be active by 1130 (particularly no S. orcutti), so we quit at 1140. S. orcutti seemed to be very abundant earlier in the morning, but I've never seen them as wary.

April 14 — Mojave Desert, San Bernardino Co., Calif. Frank Aubrey & I left UCR at 1030 and drove to our Sceloporus magister

April 14 Mojave Desert, San Bernardino Co., Calif. collecting site a mile west of Phelan. We walked this spot at 1130. We drove north on Beekley Road looking for lizards. We found several Sceloporus occidentalis and 1 Sceloporus magister. However, we expected to see more S. magister than this, so we drove west on Phelan Road to Highway 138, then west until we were 4 miles west of the Los Angeles Co. line (5 miles west of Desert Springs) and 6 miles East of Llano, L.A. County. The Joshua tree stand was larger and denser than the original site a few miles east. We caught 2 S. magister as well as a couple more S. occidentalis. There is a difference of about 600 feet elevation between these two sites (the L.A. Co. site is lower). We returned to UCR at 1635 after a trip of 119 miles. In all, 3 Sceloporus magister, 1 Phrynosoma coronatum, and 7 Sceloporus occidentalis were caught. Also seen in the Joshua tree area were Callisaurus draconoides, Crotaphytus wislizeni, & Uta stansburiana.

April 18 Deep Canyon Desert Research Station, Riverside Co., Calif.

This morning at 0715 the field Zoology class left UCR for the station. We drove over the Palms to Pines Highway, stopping occasionally to look at

April 18 Deep Canyon Desert Research Station, Riverside Co., Calif. various habitats. Along this portion of the trip we saw the following specils:

Stellar's jay	Western bluebird
Scrub jay	Prairie falcon
Vaux swift	Lark sparrow
Citellus beecheyi	Citellus leucurus

at 1230 we started to walk into Deep Canyon. In the canyon itself we saw:

Gambel quail	Uta mearnsi
Black-throated sparrow	Mourning dove
Black-headed grosbeak	Yellow warbler
House finch	Hummingbird (?)
Phainopepla	Blue-gray gnatcatcher
Black phoebe	White-throated swift
Hyla arenicolor	Ovis canadensis

A total of 16 bighorn were seen by the group. 3 ewes and 2 lambs were seen on the western edge of Deep Canyon. One ram, 3 ewes, 3 yearlings & 2 lambs were seen on the canyon floor near the 2 dead cottonwoods about 1/4 mile from the canyon mouth. (This was the first waterhole we found that contained water.) Another ewe and a yearling were seen on the rocks about 150 feet above our heads. We were able to watch them for about 5 minutes before they disappeared around a rock outcrop.

April 18 Deep Canyon D.R.S., Riverside Co., Calif.

These two animals seemed to be as curious about us as we were about them. We hiked in as far as the first major waterfall (≈100 feet high). There were several pools of water between the dead cottonwoods and the waterfall — a couple of which were at least 5 feet deep. We left the canyon at 1720 and returned to the cars. We set up camp just north of our gate + fixed chow. Then we drove down to the floor of the Coachella Valley to night collect. However, the wokst sand storm of the year was raging, so nothing was seen or collected. However, Lesser nighthawks were seen feeding around the lights in Palm Desert, and a 3/4 grown Canis latrans was seen beside the road about 200 yards north of Mr. Philip Boyd's Deep Canyon Ranch. Although sand filled the air on the floor of the valley, only gentle breezes were blowing in Palm Desert + at our campsite. We went to bed about 2230.

April 19 This morning we arose at 0700 and checked the mammal traps we had set the night before. Sixteen traps had been set, and we caught

April 19 — Deep Canyon D.R.S., Riverside Co., Calif.
9 mammals of 3 genera (Dipodomys ③ sp., Peromyscus ② sp., and Perognathus sp. ④.
After breakfast we hiked east of the gate to the mouth of a small canyon that looked very shallow from a distance. However, it turned out to be a long canyon, most of which was hidden from our campsite. It apparently goes all the way to the valley in which La Quinta is located. We saw Callisaurus draconoides, Uta stansburiana and Cnemidophorus tigris in this area, and caught one Crotaphytus collaris. A Dipsosaurus dorsalis was later seen on the alluvial fan below the canyon mouth. Also seen in the canyon wall: Verdin & Tolmie warbler, as well as House finch and Black-throated sparrow. We proceeded south from that canyon and entered another just north of Coyote canyon. In this site we saw Black-throated grey warblers and a shrike. We also caught 2 Sauromalus obesus and tol-clipped them, then released them. One Lepus californicus was seen on our way back to the cars, which we reached at 1245 (left camp at 0820 that morning). As we drove toward Riverside along

April 19 | Deep Canyon D.R.S., Riverside Co., Calif. the old highway between 1000 Palms and Garnet, we saw a couple of Citellus tereticaudus. We reached UCR at 1530 after a total trip of 227 miles.

April 23 | Mojave Desert, San Bernardino Co., Calif. Frank Aubrey + I left UCR at 1835 and drove to our collecting site at Dale Dry Lake. We night collected from 29 Palms to the dry lake, then north over the crest of Sheep Hole Summit in the Sheep Hole mountains. We caught one young Phyllorhynchus decurtatus on the road 5 miles east of 29 Palms, but saw nothing else on the road the entire evening. We camped 6½ miles north of Dale Dry Lake near the crest of Sheep Hole Summit at 10 P.M. The minimum temp. tonight was 60°F.

Apr. 24 | We arose at 0730 and ate breakfast. Then we drove to our collecting site at Dale Dry Lake, and left the car there at 0935. During the morning and early afternoon a total of 26 lizards of 4 genera and 4 species were captured and kept. In addition, 1 ♂ adult Uma scoparia was released. The break-down of species included: Cnemidophorus wislizeni - 3 adult ♂, 2 adult ♀; Uma scoparia - Uroscaurus graciosus - 1 adult ♂.

Apr. 24 Mojave Desert, San Bernardino Co., Calif. 5 adult ♂, 5 adult ♀, 4 immature ♂; Dipsosaurus dorsalis – 2 adults and 4 immatures (sexes unknown). We returned to the car at 1225. At this time, the air temp. (30") was 32.6°C., air temp. (1 cm) was 37.5°C., & soil surface temp. was 49.0°C. The relative humidity was 14%. We drove through 29 Palms to the Old Woman Springs Road near Yucca Valley. We caught 1 Sceloporus occidentalis, 1 Sceloporus magister, & 1 Uta stansburiana here. Then we drove through Joshua Tree Natl. Monument (in which we had a flat tire), through Box Canyon in the Mecca Hills to Mecca. Here we bought some food that we could eat while driving. (White gas is available at the Chevron station in Mecca.) We drove down the east side of the Salton Sea to Brawley, arriving there at 1945. We night collected from the eastern edge of Brawley to the Gilby-Palo Verde Road & back to our campsite in the algodones Dunes. On this trip we collected 14 Coleonyx variegatus (9 ♂♂ and 5 ♀♀) and released an additional ♂. We parked on top of the big dune at 2230. The minimum temp. tonight was 65°F. We saw 2 Crotalus cerastes recently hit by cars.

April 25

Colorado Desert Imperial Co., Calif.

We arose at 0640 and fixed breakfast. We drove to stations I & II in the dunes at 0715 and obtained our soil samples. Then we drove to an area west of the large irigation canal at the western edge of the dunes. Here we collected 1 Phrynosoma m'calli (♀). Then we returned to the dune area (1030) where we caught the following animals: Uma notata – 8 ad. ♂, 4 adult ♀, 2 immature ♂, and 5 immature ♀; Urosaurus graciosa – 4 adult ♂, 1 adult ♀; Callisaurus draconoides – 2 adult ♂, 3 immature(?) ♀; Crotaphytus wislizeni – 2 adult ♀; Masticophis flagellum – 1 immature (sex unknown). We released 3 other Uma notata ♂, and killed one Crotalus cerastes that was coiled at the edge of an Eriogonum sp. We returned to the car at 1430 even though adult Uma notata were still quite active (The sky had been completely overcast all day). At this time, the air temp.(30") was 29.8°C., air temp.(1 cm) was 31.0°C., and soil surface temp was 41.2°C. The relative humidity was 30%. A total of 33 animals of 6 genera and 6 species were kept from this morning's activity, and 14 animals of 1 genus and species were

Apr. 25 Colorado Desert, Imperial Co., Calif.
Kept from last night's collecting. We left the collecting site at 1530 and headed for the Coachella Valley.
Colorado Desert, Riverside Co., Calif.
We had planned to night collect in the 1000 Palms area, but the wind was blowing so hard we decided not to try it. However, while driving down the old highway between 1000 Palms & Garnet we found a young Phyllorhynchus decurtatus on the road. We reached UCR at 2005, after a trip of 590 miles. During that time we caught 83 animals of 11 genera and 13 species, of which 6 were released.

Apr. 29 5 mi. N-W. of 1000 Palms, Riverside Co., Calif.
This morning at 0730 Charles Filipini & I left UCR for collecting station III, reaching that spot at 0900. We saw numerous Callisaurus draconoides on the old highway between Garnet and our collecting site. We drove this stretch between 0845 and 0900. At 0910, when we sampled temperatures, we obtained the following results:

air temp (30") — 35.7°C.
" " (1cm) — 38.4°C.
soil surface " — 44.4°C.

We completed taking our soil samples

Apr. 29

5 mi. N.W. of 1000 Palms, Riverside Co., Calif. by 0927, then began to look for animals. When the first adult animal we saw in the dunes was a Dipodomys dorsalis, I realized we had arrived too late to get an adequate sample of Uma inornata, the species we were primarily interested in acquiring. Nevertheless, we were able to capture a total of 18 animals before we quit (at 1215) — 9 Dipodomys (3 adult ♂, 2 adult ♀, 3 immatures [sex?], and 1 very small juvenal); 9 Uma (4 adult ♂, 3 adult ♀, 1 immature ♂, + 1 immature ♀). By 1130 (air temp. [1 cm] - 41.0°C., soil surface temp. - 56.0°C.), the only Uma we could find were those we disturbed from the sand near the bases of creosote bushes on the lee side (in relation to sun) of such bushes. Rarely were we able to catch one of these, however, since they would usually run rapidly to the next bush & disappear under the sand before we could see where it went. At this same time (1130), the Dipodomys were either underground or sitting up in creosote bushes (1 case seen). When we stopped looking at 1215, various temps. were:

air temp. (30") — 39.5°C.
" " (1 cm) — 42.5°C.
soil surface temp. — 59.5°C.

Apr. 29 5 mi. N.W. of 1000 Palms, Riverside Co., Calif. The highest temp[air(30")] recorded by us for the day was at 1415, when the thermometer read 41.5°C. (107°F.). At this time we saw an adult Callisaurus draconoides sitting on the road pavement in the sun (in Rancho Mirage). We returned to UCR at 1645, after a trip of 144 miles.

Apr. 30 Frank Awbrey + I returned to station III to complete our sample today. We left UCR at 0535, and arrived at the collecting station at 0630. The sky was overcast when we left Riverside, so we expected to find the wind blowing in the desert. We were not disappointed on this count. The wind was blowing 25-30 mph. with gusts up to 40 mph. Consequently, few animals were to be seen. However, in spite of the weather, we were able to capture 12 reptiles:

Dipsosaurus dorsalis — 1
Uta stansburiana — 1 ♂
Phrynosoma platyrhinos — 1 ♂
Uma inornata — 3 ad. ♂, 3 ad. ♀, 2 im. ♂, 1 im. ♀.

Most of the Uma had to be stirred out of the sand, even though the soil temperatures were reasonably high. Apparently they didn't like the effects of wind any better than we did. Sand crickets

Apr. 30 5 mi. N. W. of 1000 Palms, Riverside Co., Calif.: and grasshoppers were the only arthropod I saw active in the wind. We stopped looking for animals at 0945. We reached UCR at 1105 after a trip of 105 miles.

May 2 UCR campus, Riverside Co., Calif.
This morning the field zoology class + I walked over the east side of the campus from 0830 to 1100. During this time the following species were seen:

Mourning dove	Brown towhee
Calif. quail	House finch
Cliff swallow	Red-shafted flicker
Sparrow hawk	Anna's hummingbird
Song sparrow	Bush-tit
Vaux swift	Violet-green swallow
Tree swallow	Pileolated warbler
Red-winged blackbird	Cowbird
Killdeer	arig. hooded oriole
Costa hummingbird	Western tanager
Bewick wren	Lesser goldfinch
Nashville warbler	Black-headed grosbeak
Bullock's oriole	Ash-throated flycatcher
Mockingbird	Sage sparrow
Black-chinned hummingbird	Crow
Citellus beecheyi	Lepus californicus
Microtus sp.	Sylvilagus audubonii
Sceloporus occidentalis	Uta stansburiana

(Wren-tit heard but not seen.)

May 8 Phelan area, Mojave Desert, San Bernardino Co., Calif.:
This morning at 0745 Frank Aubrey + I left UCR for the Mojave collecting area. We reached the collecting area at 0850. We collected 3 Sceloporus occidentalis at or near Yucca Inn on highway 138 at approximately this time. We drove on to our selected site 5 miles west of Desert Springs, but couldn't find any animals for some time (until 0957). We finally left this area at 1230 and drove through Phelan, looking for a better collecting area. Before we left the area, we had collected 2 Uta stansburiana + 3 Sceloporus magister (♀). We drove down roads slowly looking for lizards on Joshua trees, fence posts + power poles. During this period, we captured 2 Uta stansburiana and 8 Sceloporus occidentalis for a total of 11 Sceloporus occidentalis (9 ♂, 2 ♀), 4 Uta stansburiana (2 ♂, 2 ♀), + 3 Sceloporus magister (all ♀). We reached UCR at 1625 after a trip of 131 miles. The weather was slightly windy today, but otherwise was quite good for reptile activity.

May 9 Cedar Springs area, San Bernardino Co., Calif.
This morning at 0725 the field zoology class + I left for the Mojave River area. We reached the study area

May 9 Cedar Springs area, San Bernardino Co., Calif.
2 miles north of Cedar Springs at 0830. On the road between Cajon Junction and the study area we saw: Citellus beecheyi
Western kingbird
Calif. thrasher
Meadowlark
Scrub jay
Horned lark
Brewer's blackbird
Mourning dove
At the riparian habitat we were observing, the following species were seen: Mourning dove
Cliff swallow
Black phoebe
House wren
Western wood pewee
Phainopepla
Nuttall's woodpecker
Violet-green swallow
Red-tailed hawk
Bullock's oriole
Plain titmouse
Sceloporus occidentalis
Uta stansburiana
Citellus beecheyi
Turkey vulture
Rough-winged swallow
Western bluebird
Black-headed grosbeak
House finch
Red-shafted flicker
Calif. quail
Vaux swift
Ash-throated flycatcher
Anna's hummingbird
Rufous-sided towhee
Crotalus viridis
Phrynosoma coronatum
Wren-tit (song)
We drove through Cedar Spring to Millers Canyon Campground & ate lunch. Here in the conifers & alders along the Mojave River we saw (elevation – 3460 feet):
Oregon junco
Black-headed grosbeak
Hairy woodpecker
Western tanager
Western bluebird
Western wood pewee

May 9 Cedar Springs area, San Bernardino Co., Calif.

House wren Turkey vulture
Violet-green swallow Bullock's oriole
White-breasted nuthatch Stellar's jay
Brewer's blackbird

After lunch we drove to the Hesperia area, where we saw the following:

Kingbird Shrike
Sceloporus occidentalis Xanturia vigilis
Sceloporus magister Masticophis flagellum
Citellus leucurus Crow
Sylvilagus auduboni Lepus californicus
Uta stansburiana

After a brief stop here we drove to 15 mile point (Granite Mts.), 7½ miles west of Lucerne Valley. We arrived about 1620, but the temp. was already dropping, so few animals were seen: Uta stansburiana Sceloporus magister
Sauromalus obesus Phrynosoma platyrhinos
Rock wren Black-throated sparrow
Lesser nighthawk

We left this area at 1745 and returned to UCR at 1905, after a trip of 150 miles for the day. During the day we saw a total of 52 species + heard 1 species that we didn't see. We also captured the following number of animals of these species:

Masticophis flagellum — 1
Crotalus viridis — 1 (or)

May 9 — Cedar Springs area, San Bernardino Co., Calif.

Phrynosoma coronatum - 3 (2♀, 1♂)
" platyrhinos - 1
Uta stansburiana - 4
Sceloporus magister - 4 (3♂, 1♀)
Sceloporus occidentalis - 12 (7♂, 5♀)

This gives us a total capture of 26 animals of 7 species.

May 15 — Mojave Desert, San Bernardino Co., Calif.

This afternoon 5 members of the field zoology class & I left UCR for the desert. We left UCR at 1530, and reached 15 mile point (8 mi. west of Lucerne Valley) at 1700. We released a very emaciated chuckwalla, that we had in captivity for over a year, on an isolated group of rocks on the south side of the highway. It was tail-clipped #7. Then we drove to our campsite in Stoddard Valley (8 miles south of Barstow), reaching this point at 1800. (Camp was 2.4 mi. from junction of Stoddard Well Road & Barstow-Lucerne Valley Road). The elevation of the campsite was 2700 ft. After setting up camp and eating, we tried to night collect along the Lucerne Valley - Barstow Road & along the road from Lucerne Valley to Old Woman Springs. The wind was rather strong tonight, however, and

May 15 Mojave Desert, San Bernardino Co., Calif. the temperature cool, so little was seen. Two Bufo boreas were collected at the north end of Lucerne Valley, + 1 Phyllorhynchus decurtatus was found on the road about 5 miles east of Lucerne Valley. These were the only animals seen on our 123 mile trip tonight, however. We began night collecting at 1930 and quit at 2240.

May 16 We arose at 0700 and immediately checked the 16 mammal traps we had set out the night before. We caught 5 Perognathus sp. and 3 Neotoma sp., giving us a 50% take in our traps. We began to look for animals at 0810, right after breakfast. We found a ♂ Dipodomys agilis at the entrance to its burrow, where we had released it last May after marking it #6. A ♀ unmarked Dipodomys was found & marked #13 this morning, then released near our campsite. (#6 was on a rocky knoll due west of our campsite.) A couple of Crenidophorus tigris were seen before 0900, but no Sauromalus obesus or Crotaphytus collaris were seen until about 1000. They were not numerous until

May 16 Mojave Desert, San Bernardino Co., Calif.
after 1200. By 1400 we had captured 6 Crotaphytus collaris and 9 Sauromalus obesus, some in small rock piles within 50 yards of our campsite. Apparently the weather was so cool this morning that they hadn't emerged when we were scouring the rocky hillsides for them. In addition to these two species, we also collected at this site, for a total of 27 animals:
Cnemidophorus tigris - 3
Uta stansburiana - 8
Callisaurus draconoides - 1

After lunch (late) we drove back to the bench mark near which we had released 7 adult Gopherus agassizi the afternoon before. Two of these animals (#12 and #14) were found about 50 feet south-east of the release point. None of the others were found, even though we walked about 1/4 mile in a south-easterly direction. We stopped looking at 1440.
Other animals seen at this location were:
Black-throated sparrow
Rock wren Masticophis flagellum
Citellus leucurus
Scott oriole
Yellow warbler
While driving through the Ord Mts.,

Journal

May 16 Mojave Desert, San Bernardino Co., Calif.

on our way to the San Bernardino Mts., we saw a pair of Gambel Quail with 6 chicks. They were able to fly a short distance, even though they seemed quite small.

We drove up Cushionberry Grade, past Baldwin Lake, through Big Bear City, + turned left on the road to Moonridge. We continued on this road until the pavement ended, then turned right on Balsam Blvd. This road (dirt) took us down into the Santa Ana River canyon, through 7 Oaks, to Barton Flats. We reached South Fork campground at 1850, and set up camp, as well as set out the mammal traps.

Animals that had been seen along the road between Stoddard Valley + Barton Flats were:

Gambel quail
House sparrow
Violet-green swallow
Oregon junco
Stellar's jay
Robin
Sciurus griseus
Cliff swallow
Western wood pewee
Shrike
Kingbird
Citellus beecheyi
Sciurus magister

I forgot to bring the max.-min. thermometer along, so we don't know how cold it was tonight. However, at 2205, it was 8°C.

May 17 Barton Flats area, San Bernardino Co., Calif.

We arose at 0700 and checked our traps. Four Peromyscus sp. were caught in the 16 traps, for an average of 25%. After breakfast we collected reptiles in the stream bottom and looked at birds + mammals. Animals caught were:

Sceloporus occidentalis – 6
Sceloporus graciosus – 13
– 1

(Total caught – 20.)

Animals seen were:

Black-headed grosbeak	Song sparrow
Western tanager	Stellar's jay
green-tailed towhee	Sparrow hawk
Wilson's warbler	Mt. chickadee
Red-breasted sapsucker	Purple finch
Eutamias sp.	

We stopped looking at 1030 and drove to the San Gorgonio Wilderness area, arriving at 1100. We collected 12 Sceloporus graciosus on or near Poop-out Hill, then walked up the trail a couple of miles to the large meadow. Almost no snow is on San Gorgonio this year – none below about 10,000 ft., and then only in patches clear to the top. The willows have not leafed out yet. Only 2 or 3 species of wildflowers were seen. The animals seen during this stop were:

Brown creeper	Fox sparrow

May 17 Barton Flats area, San Bernardino Co., Calif.

Western bluebird
Hairy woodpecker
Citellus lateralis
Mt. chickadee
Robin
Audubon warbler
White-crowned sparrow
Violet-green swallow
Odocoileus hemionus
Pigmy nuthatch
Oregon junco
Western wood pewee
Empidonax flycatcher
Calliope hummingbird
Red-breasted sapsucker
Eutamias sp.
Red-shafted flicker
Purple finch

We returned to the car at 1540, & started back to UCR at 1600. We saw the following animals going to & from UCR:

Road out	Road back
Calif. jay	Pheasant
Kingbird	Calif. quail
House sparrow	Kingbird
Mourning dove	House finch
Shrike	Brewer's blackbird
Horned lark	Mourning dove
Cliff swallow	Sceloporus occidentalis
Say phoebe	Red-tailed hawk
Citellus leucurus	
Raven	

We captured a total of 62 reptiles & amphibians of 10 species, and saw a total of 65 species on the entire trip. We reached UCR at 1730 after a trip of 239 miles, plus 123 miles of night collecting driving.

May 21

Dale Dry Lake area, San Bernardino Co., Calif.

This evening at 1845 Bert Otzinger and I left UCR for this area. We reached 29 Palms at 2025, then began night collecting from there to Dale Dry Lake. One ♀ Coleonyx variegatus was all we saw that we collected. We saw 2 Crotalus cerastes on the road, but didn't collect them. Then we drove past the chemical works on Dale D.L. to the 29 Palm - Amboy Road, and up through the pass in the Sheep Hole Mts. & returned to our campsite at Dale D.L. Nothing was seen on the road during this time. We stopped looking for animals at 2300, after a total drive of 126 miles tonight. The minimum temp. tonight was 54°F.

May 22

We arose at 0645 and ate breakfast. I collected my soil samples from 0730 to 0800 while Bert looked for lizards. We looked for lizards until 1215, during which time we caught the following:

Uma scoparia - 21 (8 ad. ♂, 4 ad. ♀, 4 im. ♂, 5 im. ♀)
Callisaurus draconoides - 3 (1 ad. ♂, 2 im. ♀)
Dipsosaurus dorsalis - 1 (ad. ♀)

Thus, we caught 25 animals of 3 species today and 1 animal of 1 species last night in this area. We left this collecting site and drove through Joshua Tree National Monument, Box Canyon, Mecca, along the east side of the Salton Sea to the Yuma Dunes, arriving there at 1745 (Algodones Dunes).

May 22 Algodones Dune area, Imperial Co, Calif.
We began night collecting at 1900. a total of 17 Coleonyx variegatus (10 ♂♂ and 7 ♀♀) were captured between then and 2320, although we drove to the end of the pavement east of Glamis and back to the canal nearest Brawley on the Glamis Road, all but one of the animals were captured in the creosote bush scrub habitat between the two canals (the other animal was captured in the dune area near our Uma collecting site). They were still active when we quit for the night. Each time we drove between the 2 canals (a total of 6 times) we found additional animals. Two Crotalus cerastes were seen on the road (1 had just been run over, the other was alive), but no other reptiles were seen after dark. We drove a distance of 250 miles today, 84 miles of which were for night collecting. The minimum temp. tonight was 60°F.

May 23 We arose at 0730 and ate breakfast. I gathered soil samples from 0830 to 0915 while Bert looked for lizards. They were already active when we walked into the field at 0820. We looked for lizards until 1200, when we had to return to the car for more sacks (I was carrying 1 Uma and 2 Urosaurus in my hands because I had no place to put them). After we

May 23

Algodones Dunes, Imperial Co., Calif.
ate, however, we decided we would investigate the creosote bush scrub area between the all-American Canal + the western edge of the dunes. (We had a large enough sample of Uma notata by then.) Upon counting, we found we had captured the following during the morning:
Uma notata – 20 (3 ad ♂, 3 ad (?) ♂, 5 ad ♀, 5 im. ♂, 4 im. ♀)
Urosaurus graciosa – 6 (2 ad. ♂, 4 ad. ♀)
We began to look for lizards near the canal at 1245, and stopped looking at 1500. During this time we had captured the following:
Dipsosaurus dorsalis – 3 (2 ♂, 1 ♀ ad.)
Callisaurus draconoides – 1 (ad. ♂)
Cnemidophorus tigris – 1
Crotaphytus collaris – 2 (2 ♂ ad.)
We left the area at 1530 (after dissecting the Callisaurus draconoides) and drove to Dillon Road north of Indio. We waited there until sundown, then began collecting
(at 1900) along the power line road when it intersects Dillon Road. We caught one Phrynosoma m'calli and 2 Coleonyx variegatus (1 ♂, 1 ♀) along this road, even though the wind was blowing 4-7 mph. at that time. It shortly increased velocity to 16-20 mph., however, and we saw no animals for some time. Nevertheless we finally caught a young Dipsosaurus

May 23 | 1000 Palms area, Riverside Co., Calif.
dorsalis and a young Phyllorhynchus decurtatus along the old highway west of 1000 Palms, and saw one Crotalus cerastes as well. We quit looking at 2200. The minimum temperature tonight was 58°F.

May 24 | 5 mi. N.W. of 1000 Palms, Riverside Co., Calif.
We arose at 0730 after being buffeted by the wind all night. The wind was still blowing between 19 to 28 mph. with gusts above 35 mph. when we arose. We began looking for animals on Grand-daddy Dune at 0830, but quit at 0930 because of the wind. During this time, however 1 young Uma inornata was captured and 3 others (2 adults) were seen. They were entirely too "spooky" to noose, however. We saw one Crotalus cerastes at the entrance to a burrow in the side of one of the creosote bush clumps. We left the area at 0940, and arrived at UCR at 1045. During the trip we drove a total of 573 miles and caught a total of 83 animals of 11 species (25 animals near 29 Palms, 43 near Glamis, 7 near the all-american canal, and 7 near 1000 Palms.

May 26 | UCR campus, Riverside Co., Calif.
This afternoon Drs Newell gave me the identification of the beetles Frank

May 26 — UCR campus, Riverside Co., Calif.
Aubrey & I collected on the walking dune in Tule Arroyo south of Truckhaven on Feb. 2, 1959 (see page 14 of 1959 journal). Charles Papp of the CES Entomology Dept. identified them. They are members of the family Tenebrionidae. The name is Eusattus productus LeConte. His only specimen came from Sonora, Mexico. The life history of this beetle is not known. He would like to have additional specimens if we obtain any.

May 29 — 1000 Palms area (5 mi. N.W.), Riverside Co., Calif.
This morning at 0630, Frank Aubrey & I left UCR for collecting station III. We arrived at the site at 0740. The wind was blowing between 13 & 23 mph., with gusts to 29 mph. out of the northwest. However, we gathered our soil samples and began looking for lizards at 0820. Nevertheless, none were caught until 0850. The wind gradually eased a bit, but never stopped blowing. By the time we quit looking at 1145, we had captured the following:
Uma inornata: 19 (6 ad. ♂, 6 ad. ♀, 4 im. ♂, 3 im. ♀)
Dipsosaurus dorsalis: 2 (2 half-grown; sex?)
We caught a Callisaurus draconoides along the old highway on our way home, bringing our total catch for the morning to 22 animals.

May 29

Box Springs Mts., Riverside Co., Calif.

On our return to UCR, we drove up Pigeon Pass Road to reach the top of these mountains. Wind was blowing here, also, but not very strongly (5-7 mph.). Sceloporus orcutti and Sceloporus occidentalis were seen on many rocks, sitting in the sunshine. We were able to catch a total of 12 animals in this section (6 on Pigeon Pass Road, and 6 at the top of the mountains). Those animals caught were:

Uta stansburiana – 1 (ad. ♀)
Sceloporus orcutti – 6 (3 ad. ♂, 3 ad. ♀)
Sceloporus occidentalis – 5 (4 ad. ♂, 1 ad. ♀)

Thus, 3♯ animals of 6 species were captured today. We returned to UCR at 1540, after a trip of 129 miles.

June 9

Mojave Desert, San Bernardino Co., Calif.

Today at 1310 Frank Aubrey & I left UCR on our monthly collecting trip. We stopped east of Yucca Valley to try to find Sceloporus magister. Very few were seen during the afternoon, but we finally caught 3 (2 ♂ & 1 ♀). Then we drove through 29 Palms and parked along the road until it was dark enough to begin night collecting. We began night collecting at 1900 and stopped looking at 2045. Two Crotalus cerastes were seen on the road 11 mi. east of

~~June~~

June 9 Dale Dry Lake area, San Bernardino Co., Calif. 29 Palms (one seen at 1925, the other at 1930). One DOR Chionactis occipitalis (young) & one Phyllorhynchus decurtatus (young) were found about 15 feet apart on the pavement 5 mi. north of Dale Dry Lake in the Sheep Hole Mts. We didn't collect a thing all evening. The air temp. (30") at 2100 was 88°F. The minimum air temp. tonight was 64°F. We drove 138 miles today.

June 10 We arose at 0600. Soil samples were collected from 0730 to 0740. We captured lizards from 0710 to 1250. The first adult lizard seen (Uma scoparia) was at 0650. The animals caught this morning were:

Callisaurus draconoides – 2 (2 im. ♀)
Urosaurus graciosa – 1 (ad. ♂)
Crotaphytus wislizeni – 1 (ad. ♂)
Dipsosaurus dorsalis – 8 (6 ad. ♂, 2 im. ♀)
Uma scoparia – 24 (9 ad. ♂, 4 ad. ♀, 6 im. ♂, 5 im. ♀)

These 36, plus the 3 Sceloporus magister captured near Yucca Valley yesterday afternoon give us 39 animals so far on this trip. We left Dale Dry Lake at 1315. After eating a bite at the A + W Root Beer shop in 29 Palms, we drove to Belle Campground in Joshua Tree National Monument, where we slept for about an hour before driving to the Glamis area.

June 10 — 5 mi. W. of Glamis, Imperial Co., Calif. We began night collecting on the road between Brawley and Glamis at 1920. We quit looking at 2220, after capturing 13 Coleonyx variegatus (6 ad. ♂, 7 ad. ♀). All of these were caught west of Glamis — no reptiles were seen on the east side of that settlement. We drove 215 miles today. The minimum temp. tonight was 74°F.

June 11 — We arose at 0530. after getting our soil samples, we began looking in earnest for lizards at 0745 (near the Coachella Canal). We stopped looking in this area at 0955 because of the general scarcity of reptiles, then drove to our old collecting site nearby. We reached this spot at 1010. We stopped collecting here at 1215, after capturing the following animals this morning:

Dipsosaurus dorsalis — 4 (2 ad. ♂, 1 ad. ♀, 1 im. ♀)
Uropsaurus graciosa — 7 (5 ad. ♂, 2 ad. ♀)
Uma notata — 15 (5 ad. ♂, 4 ad. ♀, 3 im. ♂, 3 im ♀)

We returned to the canal, where I looked for lizards from 1230 to 1300. I caught 1 ad. ♂ Dipsosaurus dorsalis, it being the only reptile seen this entire time (see collection sheet for # 47 for temp. conditions at this time). at 1215 when we left the old collecting site, the air temp. was 106°F. Counting the animals captured last night,

June 11 5 mi. W. of Glamis, Imperial Co., Calif. We caught 40 animals in this area this trip, for a total so far of 79 animals kept (we released 3 ad. ♂ Chrosarcus graciosa and 2 im. ♀ Uma notata this morning).
1000 Palms area, Riverside Co., Calif.
We reached the Indio area about 1730 and sacked out until 1900 in the shade of some tamarisks just west of Dillon Road. Then we began night collecting at 1910 on the power line road where it crosses Dillon Road. We saw absolutely nothing as far as 1000 Palms. At 2015, 3 miles west of 1000 Palms, we found one young Phyllorhynchus decurtatus on the road, which we didn't try to catch. We finally caught one Coleonyx variegatus 5 miles west of 1000 Palms. This was the only other animal seen all night. We quit for the night at 2115. We drove 140 miles today. The minimum temp. tonight was 72° F. About 0230 a deputy sheriff awoke us to see what we were doing. It seems earlier in the evening someone had called the sheriff's office about 2 suspicious looking characters camped near his residence (at least ½ mile away).

June 12 We arose at 0515. At 0555, the air temp (30") was 27.0°C., at 1 cm. it was 25.4°C., soil temp. was 24.8°C., relative humidity was 28%. S.E. wind: 6-7 mph. We drove to "Granddaddy

June 12

1000 Palms area, Riverside Co., Calif.
Dune; collected our soil samples, then began looking for lizards. There were a large number of snake tracks over the sand. They appeared to have been made by relatively small snakes. I haven't seen so many snake tracks at one time before. We collected reptiles from 0630 to 1010 when it appeared all the lizards on the dunes were through being active for the day. For example, at 0925 the water in one of our canteens was 42.2°C. (108°F.), and by 1000 it was 44.5°C. (112°F.). The air temp. (30") when we stopped at 1010 was 40.8°C. (105°F.). As we headed for home (near the power line road intersection with the old highway) we saw a total of 6 Dipsosaurus dorsalis cross or come to a stop on the pavement. We stopped and captured 5 before they all disappeared. Including these animals and the 1 we caught last night, we captured the following in this area:
Dipsosaurus dorsalis - 7 (sexes not determined)
Coleonyx variegatus - 1 (ad. ♀)
Phrynosoma platyrhinos - 1 (ad. ♂)
Urosaurus graciosa - 1 (ad. ♂)
Uma inornata - 24 (3 ad. ♂, 11 ad. ♀, 5 im. ♂, 5 im. ♀)
This gave us a total of 34 caught in this area, and 113 for the entire trip, making this one of the most successful

June 12

1000 Palms area, Riverside Co., Calif.
trips of our entire operation. The percentage of the animals that escape our nooses has declined considerably over the past few months. We returned to UCR at 1215 after driving 57 miles today and 550 miles on the trip.

We decided to count the roadside signs and billboards that are cluttering the desert highways. We didn't count them everywhere we went, but these are the results:
Between 29 Palms turn-off and Palm Spring turnoff (on N. side of road only) — 50 signs.
29 Palms turn-off & Cabezon (N. only) — 147 signs.
" & Banning " — 225 "
" & Beaumont " — 278 "
" & Riverside (UCR) " — 394 "
" & Banning (S. only) — 130 "

June 19

Coachella Valley, Riverside Co., Calif.
I left UCR at 0630 for the Deep Canyon Research Station, stopping at Rancho Mirage for Lloyd Tevis. As I was driving to Rancho Mirage I decided to go by way of the old highway from Garnet to 1000 Palms to see if I could find any Phrynosoma. I found 3 Phrynosoma m'calli and 2 Phrynosoma platyrhinos on that 10 mile stretch of road between 0745 and 0815. After meeting Lloyd, we drove to the station. We located the spots along the road we felt should be graded

Mayhew
1959

June 19

Coachella Valley, Riverside Co., Calif.
on leveled, then we started into Deep Canyon. We entered the canyon about 1000. At 1135 we saw 2 ewe bighorn on one ledge and 2 ewes with 1 lamb on another ledge a couple of hundred feet above the floor of the canyon. They were above the first water we found in the canyon (just upstream from the 2 old dead cottonwoods). The first water is between 3/4 and 1 mile from the mouth of the canyon. The first pool was about 10 ft. x 6 ft. and about 1 foot deep. The temp. of the water slightly below the surface was 27.0°C. (in the sun), whereas the temp. near the bottom of the same pool was 26.6°C. At a pool further upstream we counted 29 adult Hyla arenicolor congregated on a shady rock at the edge of a pool. These animals were all located in an area about 2 feet square. Another ewe was seen at 1205 further upstream. We either saw her again a few minutes later on the other side of the canyon, or it was a different ewe. At any rate, we only counted 1 at this location. Nearly all the pools have water in them for a distance of about 200 yards from the location of the first water. Some of these pools (at least 2) had water at least 4 feet deep. A very small amount of

June 19 Coachella Valley, Riverside Co., Calif.
water is still flowing into some of the pools. Lloyd took several pictures of the waterholes and congregated frogs. at 1300 we saw 1 yearling bighorn and 1 adult (sex?) deeper in the canyon. They were at the area of the canyon were the water on the surface ended. There may have been more pools further upstream, but this was the end of the continuous pools of water. We turned around and retraced our steps, beginning at 1315. The highest temp. we(air) recorded in the canyon today was 41°C. (106°F.). The was a slight breeze blowing up the canyon all the time we were in it. We reached the mouth of the canyon at 1440. The following animals were seen in the canyon today:

Black-throated sparrow (6-10) Mourning dove (4)
House finch (3 ad., 1 young) White-throated swifts (5)
Gambel quail (6-8) Ladder-backed woodpecker (1)
Scott oriole (1 ♀) Uta mearnsi (2)
Cnemidophorus tigris (1) Verdin (1)
Hyla arenicolor (many) Ovis canadensis (8-9)

I returned over the old highway and caught one more Phrynosoma platyrhinos on the pavement. A few Callisaurus draconoides were seen on both trips over this road, but none were caught. I reached UCR at 1825 after a trip of 134 miles.

June 23 Mojave Desert, San Bernardino Co., Calif.

This morning at 0700 Frank Aubrey, David Reuther & I left UCR for the Phelan area. We reached the collecting area at 0800 and immediately began to capture Sceloporus occidentalis. As usual, Sceloporus magister were very hard to locate. We have found that we see more lizards in this area by driving along the dirt & paved roads than by walking. Therefore, we drove over many of the roads in this area between 0815 and 1400 when we stopped looking for animals. By that time the wind was blowing so hard we couldn't control our noses. We found Sceloporus occidentalis from 0800 to 1040, and again from 1310 to 1400. Sceloporus magister, on the other hand, was seen from 0900 to 1215 and that was all. There was no second activity period while we were still there. A total of 28 animals were caught today, as follows:

Sceloporus occidentalis — 21 (14 ad. ♂, 5 ad. ♀, 2 ad.(?) ♂)
Sceloporus magister — 6 (1 ad. ♂, 2 ad. ♀, 2 ad.(?) ♂, 1 ad.(?) ♀)
Crotaphytus wislizeni — 1 (ad. ♂)

We reached UCR at 1510 after a trip of 133 miles today.

June 24 3 mi. N. of Sunnymead, Riverside Co. (Pigeon Pass Road), Calif.

This morning at 0730 Frank Aubrey & I left UCR to collected animals east of

June 24 3 mi. N. of Sunnymead, Riverside Co., Calif. Box Springs Mts. We arrived at this spot at 0800 and immediately began to collect both species of Sceloporus in this region (occidentalis and orcutti). They were very numerous when we arrived, even though an early morning fog had just burned off. Within a short time, however, almost none could be found anywhere (by 0900). We quit looking in this area at 0920 and started back for UCR. A few Scelop. occidentalis were seen on fence posts on our way back, two of which were caught. However, reptiles were almost nowhere to be seen by then. We reached UCR at 1000 after a trip of 18 miles. The animals caught today were 14 in number:

Sceloporus occidentalis – 7 (4 ad. ♂, 3 ad. ♀)
Sceloporus orcutti — 5 (2 ad. ♂, 1 ad. ♀, 2 im. ♂, 1 im. ♀)
Uta stansburiana — 2 (1 ad. ♂, 1 ad. ♀)

July 7 UCR campus, Riverside Co., Calif.

This morning at 0715 Frank Awbrey, Bobby Mayhew & I left my office in Darwin Hall and walked to the east side of the campus. During the morning we caught only 7 animals:

Sceloporus orcutti – 4 (3 ad. ♂, 1 im. ♂)
Uta stansburiana – 2 (2 ad. ♂)
Phrynosoma coronatum – 1 (ad. ♀)

They were already quite active and fairly abundant when we reached the area at

July 7 — UCR campus, Riverside Co., Calif.
0730. We saw 6 Sceloporus orcutti shortly after reaching study area A, but could catch only one of them. The last animal was caught at 1030 when the air temp. (30") was only 29°C. We reached Darwin Hall again at 1110.

July 9 — 4 mi. N.W. of Sunnymead, Riverside Co., Calif.
This morning at 0610 Frank Aubrey & I left UCR to work the eastern slopes of Box Springs Mts. We caught the first animal we saw (Sceloporus occidentalis) at 0630. By 1055 we had captured 25 animals:
Sceloporus occidentalis – 12 (9 ad. ♂, 3 ad. ♀)
Sceloporus orcutti – 13 (2 ad. ♂, 3 ad. ♀, 6 im. ♂, 2 im. ♀)
By this time the air temp (30") was 37.9°C., & at 1 cm. it was 41.2°C. The campus was reached at 1120 after a trip of 24 miles.

July 15 — Lovejoy Buttes, 6½ mi. N. of Llano, Los Angeles Co., Calif.
This morning at 0420 Frank Aubrey & I left UCR for this area of the Mojave Desert. We reached our former collecting areas just west of Phelan at 0530, but saw no animals in this area at the time we passed through. The first animal seen (young Sceloporus magister) was captured at 0600. The area by the road on the S.W. side of Lovejoy Buttes contains a rather large population of Sceloporus magister. In fact, we saw more members of this species

July 15

Lovejoy Buttes, Los Angeles Co., Calif.
today than we have seen on all our collecting trips combined this past year. In addition, we caught more of them today (24) than we presently have in our entire collection for reproduction studies on this species. Apparently, in the past we have been working at the very edge of the distribution of S. magister in this region. Now we have moved farther out into the occupied area. No Sceloporus occidentalis were seen today until we returned to our old collecting areas late this afternoon. Apparently these two species overlap in distribution in a rather narrow band in this region. We captured a total of 25 animals today, divided as follows:

Sceloporus magister - 24 (5 ad ♂, 5 ad. ♀, 4 im ♂, 5 im ♀, 5 ?)
Sceloporus occidentalis - 1 (ad. ♀)

In addition to collecting in the immediate vicinity of Lovejoy Buttes, we captured animals on or near Saddleback Buttes (18 miles east of Landcaster). A road goes between Pinto & Rocky Buttes, and spirts Alpine Buttes, but no specimens were seen or collected near these outcrops. We returned toward UCR at 1915, reaching there at 2025, after a trip of 224 miles. (Sunset was at 1901).

July 16

Box Springs Mts., Riverside Co., Calif.
This morning at 0525 Frank Aubry & I left UCR for this collecting area. We saw our first lizard at 0540 (Sceloporus occidentalis), but couldn't catch it because it was behind a fence that was posted. However, we caught 2 Sceloporus orcutti before 0600 (0555 & 0559). In all, we caught 20 animals today, as follows:
Sceloporus orcutti — 13 (7 ad. ♂, 5 ad. ♀, 1 im. ♀)
Sceloporus occidentalis — 4 (2 ad. ♂, 1 ad. ♀, 1 ?)
Uta stansburiana — 3 (2 ad. ♂, 1 ad. ♀)
Sceloporus occidentalis were noticable today by their absence or near absence on the mountains. Half of those we caught were seen while we were on our way home. Sceloporus orcutti didn't seem to be nearly as numerous today as we have seen them at other times, even though we were in the area at the time they began to emerge. We quit at 1205 and returned to UCR by 1215 after a trip of 31 miles.

July 20

5 mi. N.W. of 1000 Palms, Riverside Co., Calif.
Frank Aubry & I left UCR at 0310 on our monthly collecting trip. We reached this collecting site at 0530 (after an hour's delay in Beaumont to get the brakes adjusted on #325). Frank got the soil sample at this station

July 20 5 mi. N. W. of 1000 Palms, Riverside Co., Calif. while I drove along the road between here and 1000 Palms looking for animals. I found one Phrynosoma m'calli, but that was all. Then we collected lizards at station III until 1200. During this time we caught the following:

Phrynosoma m'calli – 1 (ad ♂)
Dipsosaurus dorsalis – 6 (2 ad ♂, 1 ad ♀, 3 im ?)
Cnemidophorus tigris – 2 (ad ♂)
Callisaurus draconoides – 1 (ad ♀)
Uma inornata – 20 (4 ad ♂, 10 ad ♀, 1 ?, 3 im ♂ 2 im ♀,

Thus, 30 animals were caught at this site. We left this station and proceeded to the Algodones Dunes west of Glamis. 5 mi. W. of Glamis, Imperial Co., Calif. We reached this area about 1730 and drove slowly down the road looking for animals that might have emerged for an afternoon activity period. We saw the first animal at 1730 at the edge of the road. We stopped + walked over the dunes until just after sunset (1830). During that time we caught the following animals:

Phrynosoma m'calli – 1 (ad ♂)
Uma notata – 16 (5 ad ♂, 7 ad ♀, 1 im ♂, 3 im ♀)

After dark we tried night collecting between Glamis and the East Highline Canal. However, all we captured were

July 20 — 5 mi. W. of Glamis, Imperial Co., Calif. 2 adult ♂ Coleonyx variegatus. We found 2 newly hatched Coleonyx but released them after we had examined them. We quit looking at 2145, since we could find nothing. The minimum temp. tonight was 84°F.

July 21 — We arose at 0445. at ~~this~~ about this time the wind was blowing 15-18 mph. (gusts to 24 mph.) from the S.E. Other weather conditions:

air temp (30") - 29.0°C.
" " (1 cm) - 30.4°C.
soil surface temp. - 30.5°C.
relative humidity - 60%

An adult Uma notata was found on the road at 0515 (the same time the above weather conditions were recorded). We drove along the road looking for animals after we obtained our soil sample at station II. We didn't get a sample at station I (on top of a dune) because the wind was blowing the sand so badly. During the morning we caught only the following animals:

Uma notata - 3 (1 ad. ♂, 1 ad ♀, 1 im ?)
Phrynosoma m'calli - 2 (1 ad ♂, 1 ad ♀)
Dipsosaurus dorsalis - 1 (ad ♀)

Thus, only 6 animals were caught this morning, but during our entire stay in this area (yesterday afternoon + this morning) we caught the following:

July 21

5 mi. W. of Glamis, Imperial Co., Calif.
Dipodomys deserti - 1 (ad ♀)
Phrynosoma m'calli - 3 (2 ad ♂, 1 ad ♀)
Coleonyx variegatus - 2 (ad ♀)
Uma notata - 18 (6 ad ♂, 8 ad ♀, 1 im ♂, 3 im ♀)
This makes a total of 24 animals caught at this site this trip, and 54 caught so far this trip.

To give an idea of the temperatures experienced so far on this trip, at 0645 the water temp. in an almost full 10 gallon water can was 32.5°C. (91°F.). We spent considerable time late in the morning looking for animals in excellent creosote bush scrub between the East Highline Canal and the Coachella Canal. However, all we saw were 3 Callisaurus draconoides. We expected to find Dipodomys deserti in abundance, but failed to see any. At this time the soil surface in the open was 49.0°C., while the soil surface temp. in the shade of a creosote bush was 39.0°C. The relative humidity was 36%. The sky was about 90% overcast (thin in spots). The air temp. (30") was 37.0°C. and at 1cm. it was 38.5°C. The wind was blowing 8-12 mph. from the S.E. We left this area at 1145 and drove up the eastern side of Salton Sea, through Joshua Tree Natl. Monument to Dale Dry Lake.

July 21

22 mi. E. of 29 Palms, San Bernardino Co., Calif.

We reached Dale Dry Lake at about 1630. They are beginning to black-top the road from Dale Dry Lake almost to Rice, so we drove over a portion of this road to see if it is going to go through some good collecting areas. We caught a couple of Callisaurus draconoides and 1 Uma scoparia in the short distance we drove over the road. Then we returned to collection station II and began to look for Uma scoparia. We caught a total of 12 of them before sundown, as well as 1 Crotaphytus wislizeni (ad ♂). Then we gathered our soil sample before it grew dark. No night collecting was attempted, so we caught a total of 15 animals at this location this afternoon, as follows:

Callisaurus draconoides - 2 (ad ♂)
Crotaphytus wislizeni - 1 (ad ♂)
Uma scoparia - 12 (3 ad ♂, 2 ad ♀, 3 im ♂, 2 im ♀, 2 im ?)

The minimum temp. tonight was 84°F. Clouds were fairly thick around us when we went to bed at 2130.

July 22

We arose at 0200 because of the lightning and the threat of rain. Our car was the highest object around for at least a couple of

July 22

22 mi. E. of 29 Palms, San Bernardino Co., Calif.
miles, so we decided to leave this area and go where we had seen insulated (grounded) electric poles about 5 miles nearer 29 Palms. We tried to sleep in the front seat of the station wagon until 0400. By then the storm had moved out of our area. We returned to our original campsite to finish the night. Frank set up a cot again, but I lay down on the front seat of the station wagon. Only a very small amount of rain had fallen in this area as the storm passed through. We slept until 0515. at 0600 the weather conditions were:

air temp. (30") – 29.0°C.
" " (1cm) – 29.4°C.
soil surface temp – 30.0°C.
relative humidity – 50%
wind – 5-7 mph from S.W.

We looked for animals from then until 0900, when we started toward U.C.R. However, we drove slowly along the road toward 29 Palms and stopped frequently to look for animals. We reached Old Dale at 1100 at which time we stopped looking for animals. By this time this morning, we had captured 36 animals of 4 species, as follows:

Mayhew 1959

July 22 22 mi. E. of 29 Palms, San Bernardino Co., Calif.
Callisaurus draconoides – 1 (ad ♀)
Urosaurus graciosa – 1 (ad ♀)
Dipsosaurus dorsalis – 9 (3 ad ♂, 1 ad ♀, 1 im ♂, 4 im ♀)
Uma scoparia – 25 (7 ad ♂, 9 ad ♀, 4 im ♂, 5 im ♀)
Thus, for the entire trip, we captured 105 animals of 10 species, as follows:
Uma inornata – 20 (4 ad ♂, 10 ad ♀, 1 ad ?, 3 im. ♂, 1 im ♀, 1 im ?)
Uma notata – 18 (6 ad ♂, 8 ad ♀, 1 im ♂, 3 im ♀)
Uma scoparia – 37 (10 ad ♂, 11 ad ♀, 7 im ♂, 7 im ♀, 2 im ?)
Callisaurus draconoides – 4 (2 ad ♂, 2 ad ♀)
Dipsosaurus dorsalis – 16 (7 ad ♂, 1 ad ♀, 4 im ♂, 4 im ♀)
Urosaurus graciosa – 1 (ad ♀)
Crotaphytus wislizeni – 1 (ad ♂)
Phrynosoma m'calli – 4 (3 ad ♂, 1 ad ♀)
Coleonyx variegatus – 2 (ad ♀)
Cnemidophorus tigris – 2 (ad ♂)
We reached UCR at 1355 after a trip of 613 miles.

July 29 Phelan area, San Bernardino Co., Calif.
Frank Aubry + I left UCR at 0405 so we could be at the collecting area at sunrise, which occurred at 0505. The first animal seen was an adult Sceloporus magister. It was seen at 0558 sitting in the sun on the side of a Joshua tree. This was at an elevation of 3600 ft., and the weather conditions at the time were as follows:

July 29 Phelan area, San Bernardino Co., Calif.
air temp. (30") – 23.7°C.
" " (1cm) – 23.4°C.
soil surface temp. – 21.0°C.
wind – none
relative humidity – 22%

The first Sceloporus occidentalis was seen at 0650, also sitting in the sun on the trunk of a Joshua tree. We saw about 8 Sceloporus magister and 2 Sceloporus occidentalis before we were able to capture any lizards. Three newly hatched Uta stansburiana were seen in this region during the day. Sceloporus occidentalis were so numerous along the road 1 to 3 miles east of Phelan that it took us 3 hours to drive the 2 miles. We continued east of Phelan to Hesperia, then S.E. to the crossing over the Mojave River. We spent from 1330 to 1430 resting in the car by the bridge. Then we retraced our route looking for lizards again. We returned to Phelan, then drove N.W. from that village. Sundown occurred at 1850, so we stopped looking for lizards at 1900 and returned to UCR. We reached the campus at 2015, after a 172 mile trip. The animals caught today were as follows:

Sceloporus magister – 8 (3 ad ♂, 2 ad ♀, 2 im ♂, 1 im ♀)
Sceloporus occidentalis – 21 (9 ad ♂, 11 ad ♀, 1 im ♂)
Callisaurus draconoides – 1 (ad ♂) Total = 30

Mayhew
1959

Aug. 5 Box Springs Mts., 4 mi. N.W. of Sunnymead, Riverside Co., Calif.
(These are notes obtained by Frank Aubry)
This morning Frank & Charles Filippini left UCR at 0515 and reached the collecting area at 0525. They waited until 0540 at the 1800 ft. level, but the sun was not yet hitting the surface there, so they decided to move on to the area above McGregor's Ranch. They arrived there at 0605. The temperatures at the time were:

air temp. (30") - 19.5°C.
" " (1cm) - 19.5°C.
soil surface temp. - 19.0°C.

There were no lizards seen until 0645, at which time they caught an adult Sceloporus orcutti. They stayed in that area until 0845 and caught 6 Sceloporus orcutti + 2 Sceloporus occidentalis. At this time no more lizards were seen except for some newly-hatched Uta stansburiana, so they returned to the 1800 ft. level. Here they caught 1 Crotalus ruber, 1 adult Sceloporus orcutti, + 2 Sceloporus occidentalis. After 0930 they saw only 2 more lizards, both Sceloporus occidentalis, but they were unable to capture either of them. At 1030 they returned to UCR. There were probably

Aug. 5 Box Springs Mts., Riverside Co., Calif.
a few lizards still active at this time, but they were found to be very wary. This contrasted with their docility and ease of capture earlier in the morning. They drove a total of 28 miles. a total of 12 animals were caught today, as follows:

Crotalus ruber – 1
Sceloporus orcutti – 7
Sceloporus occidentalis – 4

Aug. 10

Leland Creek, 5 mi. N. of Strawberry, Tuolumne Co., Calif.

Today at 1400 I left Kittie + Glen Ramont's cabin and hiked down to the main road (Highway 108), looking for lizards. The air temp. at the time was 30°C. after examining a flat, open area, I hiked up Leland Creek to the road to Leland Meadow. The entire region covered ranged between 5700 and 5800 feet elevation. It is yellow pine coniferous forest, containing considerable sugar pines, incense cedars, white firs, + black oaks. There is also considerable ground cover over much of the area. However, along road cuts and fence lines there is a fair amount of open area. However, not one lizard was seen on the entire trip. I returned to the cabin at 1650, at which time the air temp. was 27.4°C. There were many spots that appeared very similar to some in southern Calif. in which I've captured many Sceloporus occidentalis and Sceloporus graciosus. Possibly it was the time of day that accounted for the lack of lizards — I don't know.

Aug. 11

3 mi. E. of Dardanelles, Tuolumne Co., Calif.

This afternoon at 1715, while returning from the top of Sonora Pass, I saw a Sceloporus graciosus sitting

Aug. 11

3 mi. E. of Dardanelles, Tuolumne Co., Calif. in the sun on a fallen log beside the road. The log was one of several that occurred in an open meadow near Eureka Campground. It is also near Douglas Lodge. In looking around, Milo Long, Bobby Mayhew & I found an additional 6 lizards. We were able to catch a total of 5 of them. Four of them were Sceloporus graciosus, one was a Sceloporus occidentalis. The last one was captured at 1740, just a short time before the sun disappeared from this area. All but one of them was on a log when first seen. That one was sitting in the sun on a small rock. No other lizards were seen during the entire trip this afternoon.

This morning, however, about a dozen lizards were seen while I walked in the vicinity of Cow Creek. The first one was seen at 0912, sitting in the sun on a low rock. Most of the rest of them were extremely "spooky"- I rarely got within 30 ft. of them before they disappeared into holes. I returned to the cabin at 1230 with a total of 1 Sceloporus occidentalis and 2 Sceloporus graciosus. Lizards don't appear to be nearly as abundant here as at similar elevations in the San Bernardino Mts.

Aug. 12

2 mi. S. of UCR, Riverside Co., Calif.
(Notes obtained by Frank Aubrey).
This morning Frank & Charles Filippini left UCR at 0530, reaching this site at 0540. No lizards were seen until 0635 (an immature Sceloporus orcutti), at which time weather conditions were:
air temp (30") – 22°C. soil surface temp – 24.0°C.
" " (1 cm) – 24.5°C. relative humidity – 64%
a total of 8 lizards (5 Sceloporus orcutti 2 Sceloporus occidentalis & 1 Uta stansburiana) were captured between this time and 0905. When they left at 0915, weather conditions were:
air temp (30") – 25.0°C. soil surface temp. – 31.5°C.
" " (1 cm) – 25.0°C. rel. humidity – 50%
Box Springs Mts., Riverside Co., Calif.
Between 0935 and 1100, a total of 7 lizards were taken today at this site (4 Sceloporus orcutti, 2 Sceloporus occidentalis, 1 Uta stansburiana). Only 1 Sceloporus occidentalis was seen on fence posts on Pigeon Pass Road. No species seemed as abundant as earlier in the summer. Whether this is due to weather or to our collecting in the area is hard to say. Perhaps we should try some of the side roads up to the base of the hills where rocks are very abundant. At 1115 a slight breeze started & the relative humidity dropped to 30%. Since they saw no more lizards after 1100, they returned to UCR at 1130. They drove 29 miles today.

Aug. 14 Leland Creek, 5 mi. N. of Strawberry, Tuolumne Co., Calif.

This morning at 0915 Milo Long + I began looking for lizards. We found them to be fairly abundant in the sunny areas above the creek and on a rocky slope nearby. We captured a total of 8 animals during the morning (3 Sceloporus occidentalis + 5 Sceloporus graciosus). We quit looking at 1240.

Aug. 18 5 mi. N.W. of 1000 Palms, Riverside Co., Calif.

This morning at 0455 Frank Aubrey, David Reuther + I left UCR on our monthly collecting trip to the Colorado + Mojave Deserts. We reached station III at 0615. Soil samples were obtained by 0645, then we began to look for lizards. The first lizard (a young one) was seen at 0650. It was Uma inornata. The sky was somewhat overcast + a strong wind was blowing, so animals didn't become active very early. Then it cleared up suddenly + became quite hot quickly. Consequently, the animals were active for a relatively short time this morning. Since few animals were to be seen here, we were afraid we might be thinning out the population too much. Therefore, at 0930 we went over to Ramon Road to collect. However, the area we used last year is so very dry we didn't expect to see very much.

Mayhew
1959

Aug. 18

5 mi. N.W. of 1000 Palms, Riverside Co., Calif.
actually we saw (and caught) 2 animals here by 1115, at which time we left. By then we had captured the following animals in this region:
Uma inornata – 7 (1 ad ♂; 3 ad ♀; 3 im ♂)
Crotaphytus wislizeni – 1 (ad ♀)
Phrynosoma platyrhinos – 2 (1 ad ♂; 1 ad ♀)
This made a total of 10 caught in this region this morning.
5 mi. W. of Glamis, Imperial Co., Calif.
We reached the Glamis area at 1630 and began to collect animals immediately. We drove up + down the road collecting on it for some time. Then we parked the car and collected in the sand dunes. We collected until 1845 in this manner (sundown ~ 1820, moonrise ~ 1840). Then we might collected along the road until 2230. We travelled 256 miles during the day.
In this area we collected the following today:
Uma notata – 14 (7 ad. ♂; 3 ad. ♀; 2 im. ♂; 2 im. ♀)
Phrynosoma m'calli – 1 (ad. ♀)
Coleonyx variegatus – 9 (4 ad. ♂; 4 ad. ♀; 1 im. ♂)
Crotalus cerastes – 1 (ad. ♂)
For the day, then, we caught 35 animals (10 near 1000 Palms, 25 near Glamis).
The maximum temp. today was 104°F., the minimum temp. tonight was 74°F.

Aug. 19 5 mi. W. of Glamis, Imperial Co., Calif.
We arose at 0615. Soil samples were collected from 0800 to 0815 while the other two (Frank & Dave) began looking for lizards at 0800. We quit collecting in the dunes at 1045, just after Frank pulled a sidewinder out of its hole with his bare hands. a lizard had just run into the hole and its tail still protruded from the entrance. Frank grabbed through the sand from above & came up with the sidewinder - lizard in its mouth. The lizard had been bitten by the snake and died within a minute. Luckily neither fang had hit Frank's hand, so he was unharmed, but a bit shaken. The weather was so pleasant today we found several lizards resting on the pavement as we drove toward the Coachella Canal. Therefore, we collected all the way to the canal, which we reached at 1200. We ate lunch, then left the canal at 1300. We stopped between the canals and looked for animals from 1300 to 1430, but found very few animals active at this time. The following animals were caught this morning & early afternoon:
Uma notata - 27 (10 ad ♂; 2 ad ♀; 7 im. ♂; 8 im. ♀)
Urosaurus graciosa - 4 (3 ad. ♂; 1 ?)
Crotalus cerastes - 1 (ad ♀)

Mayhew
1959

Aug. 19

5 mi. W. of Glamis, Imperial Co., Calif.
Dipsosaurus dorsalis – 1 (ad. ♀)
Callisaurus draconoides – 4 (2 ad ♂; 1 ad ♀; 1 im ♀)
Thus, we caught 37 animals in the Glamis area today. The maximum temp. here today was 95°F.
We left the Glamis area at 1430 and drove to the Dale Dry Lake area, arriving at 1830.
22 mi. E. of 29 Palms, San Bernardino Co., Calif.
The road from Dale Dry Lake to the San Bernardino – Riverside county line has just been paved (finished this month), so we drove to the end of the pavement and back to station IV. Two Coleonyx variegatus ♂ were collected near the county line, but no other reptiles were seen. We quit for the night at 2040. There had been a heavy rain in this area last Monday (Aug. 17), and there were many spots where the water had flooded over the road. The minimum temp. tonight was 58°F.
The total number of animals collected today was 39, as follows:
Uma notata – 27 (10 ad ♂; 2 ad ♀; 7 im ♂; 8 im ♀)
Crotalus cerastes – 1 (ad ♀)
Urosaurus graciosa – 4 (3 ad ♂; 1 ?)
Dipsosaurus dorsalis – 1 (ad ♀)
Callisaurus draconoides – 4 (2 ad ♂; 1 ad ♀; 1 im ♀)
Coleonyx variegatus – 2 (ad ♂)
We drove 226 miles today.

Aug. 20 22 mi. E. of 29 Palms, San Bernardino Co., Calif.
We arose at 0530. We collected soil samples from 0630 to 0645. Then we collected lizards from 0650 to 1000 at the regular collecting area. We also marked 2 young Larrea divericata to check on their growth rate. They are at the edge of the dirt road going to the Iron Age Mine a short distance from where it leaves the paved road leading to 29 Palms. Both of them are on the east side of the dirt road. One of them is 3" high, the other is 4½" high. at 1000 we drove east on the newly paved road for 2 miles and began to collect animals in that area. We collected here until 1400. Then we headed for 29 Palms, capturing 1 Dipsosaurus dorsalis on the way. A young Scelporus magister was caught later as we approached Morongo Valley. Thus, we captured 60 animals today, as follows:

Uma scoparia - 37 (13 ad ♂; 8 ad ♀; 12 im ♂; 2 im ♀; 2 ?)
Scelporus magister - 2 (1 ad ♀; 1 im ♂)
Urosaurus graciosa - 5 (ad ♂)
Dipsosaurus dorsalis - 13 (7 ad ♂; 2 ad ♀; 4 ?)
Callisaurus draconoides - 3 (1 ad ♂; 1 ad ♀; 1 im ♀)

This comes to a grand total of 134 animals captured on the entire trip, in 12 species. They are divided as follows:

Aug. 20 — 22 mi. E. of 29 Palms, San Bernardino Co., Calif.

Callisaurus draconoides – 7 (3 ad ♂; 2 ad ♀; 2 im ♀)
Dipsosaurus dorsalis – 14 (7 ad ♂; 3 ad ♀; 4 ?)
Urosaurus graciosa – 9 (8 ad ♂; 1 ?)
Coleonyx variegatus – 11 (6 ad ♂; 4 ad ♀; 1 im ♂)
Sceloporus magister – 2 (1 ad ♀; 1 im ♂)
Uma notata – 41 (17 ad ♂; 5 ad ♀; 9 im ♂; 10 im ♀)
Uma inornata – 7 (1 ad ♂; 3 ad ♀; 3 im ♂)
Uma scoparia – 37 (13 ad ♂; 8 ad ♀; 12 im ♂; 2 im ♀; 2 ?)
Crotalus cerastes – 2 (1 ad ♂; 1 ad ♀)
Phrynosoma platyrhinos – 2 (1 ad ♂; 1 ad ♀)
Phrynosoma m'calli – 1 (ad ♀)
Crotaphytus wislizeni – 1 (ad ♀)

We reached UCR at 1710 after driving 114 miles today. The maximum temp. today was 90°F. The entire trip covered 596 miles.

Aug. 25 — Lovejoy Buttes area, Los Angeles Co., Calif.

This morning at 0450 Frank Aubrey, David Reuther & I left UCR for this region, arriving at 0605. The first lizard seen (Sceloporus magister) was located at 0630. at this time weather conditions were:

air temp. (30") – 22.0°C.
" " (1cm) – 21.9°C.
soil surface temp – 22.7°C.
(sun) Joshua tree bark temp – 37.0°C.
Relative humidity – 52%
No wind, no clouds.

We missed the first 5 lizards we saw.

Aug. 25 Lovejoy Buttes area, Los Angeles Co., Calif.
We collected between Lovejoy Buttes & Saddleback Butte all day long. Animals were not as numerous during the middle of the day, but some Sceloporus magister could be located throughout the day. The last Sceloporus magister was seen on a Joshua tree 15 minutes after sundown. at that time the air temp. (30") was 26.5°C. We quit looking for lizards at 1845, and camped for the night at 2000. We captured 22 lizards today, as follows:
Sceloporus magister — 19 (6 ad ♂; 3 ad ♀; 7 im ♂; 3 im ♀)
Uta stansburiana — 2 (1 ad ♂; 1 ad. ♀)
Crotaphytus wislizeni — 1 (im ♀)
We drove 161 miles today. Maximum temp. today was 97°F., minimum temp. tonight was 62°F. We camped near Phelan.

Aug. 26 Phelan area, San Bernardino Co., Calif.
We arose at 0645, and started after lizards at 0800. We looked in this region until 1205, when we drove to Hesperia. We found the most lizards (Sceloporus occidentalis) at the eastern edge of Phelan. We arrived in the Hesperia area at 1230, but animals weren't much in evidence at this time of day. Therefore, we decided, at 1400, to drive to Wrightwood.

Mayhew
1959

Aug. 26 Wrightwood area, Los Angeles Co., Calif.
We reached Wrightwood at 1500, and found some Sceloporus occidentalis a few moments later. We drove west on state highway 2 to Big Pines Recreation area, then turned left and drove up to Blue Ridge. We caught both Sceloporus occidentalis and Sceloporus graciosus there. We stayed in the area (8300 ft.) until sundown to see how late any of the lizards stayed out. Only Sceloporus graciosus were seen at this elevation (the last Sceloporus occidentalis we saw was at 7700 ft.). The last lizard was seen at 1825. Sunset at that location occurred at 1827. The air temp (30") at this time was 13.0°C. We caught 43 lizards today, as follows:

Sceloporus occidentalis – 27 (17 ad. ♂; 8 ad ♀; 1 im ♂; 1 im ♀)
Sceloporus magister – 3 (1 im ♂; 2 im ♀)
Sceloporus graciosus – 10 (7 ad ♂; 3 ad ♀)
Uta stansburiana – 3 (2 ad ♂; 1 ad ♀)

Thus, we caught 65 animals during our trip, as follows: (Max. temp. today – 90°F.)

Sceloporus occidentalis – 27 (17 ad ♂; 8 ad ♀; 1 im ♂; 1 im ♀)
Sceloporus magister – 22 (6 ad ♂; 3 ad ♀; 8 im ♂; 5 im ♀)
Sceloporus graciosus – 10 (7 ad ♂; 3 ad ♀)
Uta stansburiana – 5 (3 ad ♂; 2 ad ♀)
Crotaphytus wislizeni – 1 (im ♀)

We drove 122 miles today, 283 miles on the trip.
We reached UCR at 2020 tonight.

Aug. 31

Palms Springs, Riverside Co., Calif.
Frank Aubrey & I left UCR at 0503, and arrived in Palm Springs at 0610. We began looking for lizards at 0615, (David Reuther went with us.) & stopped walking looking for lizards at 1035. We drove along some of the roads looking until 1200. After lunch we began looking again at 1545. Few animals were seen, however. We parked at the corner of Travis Way and Country Club Drive (formerly avenue 40) in Rancho Mirage at 1700. One Uma inornata was seen at 1720, but no other animals were seen before we quit looking at 1730. A few recently hatched animals were seen today:

Uma inornata - 3
Diposaurus dorsalis - 2
Cnemidophorus tigris - 1

During the day we captured a total of 39 animals of 6 species.
The animals caught were:
Diposaurus dorsalis - 6 (2 ad ♂; 3 ad ♀; 1 im ?)
Uma inornata - 25 (7 ad ♂; 5 ad ♀; 6 im ♂ 7 im ♀)
Urosaurus graciosa - 3 (ad ♂)
Callisaurus draconoides - 2 (1 ad ♂; 1 im. ♂)
Cnemidophorus tigris - 2 (ad ♂ 3 ad ♀)
Crotalus cerastes - 1 (ad ♂)
We returned to UCR at 1915 after a trip of 153 miles.

Mayhew
1959

Sept. 9

1000 Palms area, Riverside Co., Calif.
Frank Aubrey + I left UCR at 0450 and drove to our soil sampling area near 1000 Palms. We collected soil samples from 0600 to 0610. Then we began to look for lizards 2 miles north of Palm Desert on Country Club Drive at 0705. We saw one lizard at 0710, but no more were seen at this location, even though we looked until 0815, even though the creosote bushes in this area look to be in excellent shape. We drove along the road for a while to see if we could find any animals. We saw a couple, but not enough to pay us to stay in the area. Therefore, we left this area at 0905 and drove to Palm Springs. We returned to our former collecting site on Vista Chino Road and began looking for lizards at 0955. In this area we saw 2 recently hatched Dipsosaurus dorsalis (one of which we toe-clipped #12 and released) + 1 Uma inornata. We stopped looking for animals at 1110 and prepared to drive to Blythe.
animals caught to this time were:
Uma inornata – 8 (5 ad ♂; 3 ad ♀)
Urosaurus graciosa – 1 (ad ♂)
Thus, only 9 animals were caught all morning. No wind today at all.

Mayhew
1959

Sept. 9

Glamis area, Imperial Co., Calif.
On the drive down an adult Phrynosoma (sp?) ran across highway 99 in front of our car about 5 mi. west of Westmoreland. This occurred at 1510 when the air temp (30") was 38.8°C. and the soil & road temps. were 55.0°C. We stopped the car, but could find no trace of the animal by that time. We reached the Coachella Canal near the Algodones Dunes at 1630. We began looking for lizards at 1650. a large number of recently hatched lizards were seen:

Crotaphytus wislizeni — 1
Uma notata — 25

There were also a large number of adult animals active at this time of the evening. We captured the following before dark:

Uma notata - 13 (3 ad ♂; 6 ad ♀; 2 im ♂; 2 im ♀)
Callisaurus draconoides - 1 (ad ♀)

We stopped looking for diurnal lizards at 1830 (Sunset at 1755). We began night collecting along the road at 1900. However, night collecting wasn't so good. We caught:

Coleonyx variegatus — 2 (ad ♂)
Uma notata - 1 (ad ♂)

We saw 3 newly hatched Crotalus cerastes between 1920 & 1930 within

Sept. 9

Glamis area, Imperial Co., Calif.
a distance of about 1 mile on the pavement. We quit right collecting at 2045. We had captured 26 animals of 5 species today. We drove 262 miles today. The maximum temp. today was 108°F., the minimum temp. tonight was 81°F. The humidity remained quite high because of the thunderheads that surrounded us.

Sept. 10

We arose at 1220 because a strong wind came up out of the S.W., producing a terrible dust and sand storm at our campsite on the highest dune in the area. We drove east 14 miles to escape the sand, then camped again. We got back to bed at 0115. We arose again at 0615. There was no wind blowing but the sky was partly overcast. We gathered soil samples from 0700 to 0730. Then we began to look for lizards at 0730 (We had seen 5 at 0710 near our soil sampling area). We were able to capture a fair number by 1040, when we stopped looking. One lizard escaped from R17, so we replaced it with another animal at that time. We caught a total of 30 lizards this morning of 2 species:

Sept. 10

Glamis area, Imperial Co., Calif.
Uma notata - 21 (9 ad ♂; 9 ad. ♀; 1 im ♂; 2 im ♀)
Urosaurus graciosa - 9 (6 ad ♂; 3 ad ♀)
There were lots of recently hatched Uma notata around (28 seen this morning, as well as 2 newly hatched Cnemidophorus tigris), but very few immature-appearing animals. (are all last year's animals now adults?) We ate lunch, then left the Coachella Canal Bridge at 1240.

Dale Dry Lake area, San Bernardino Co., Calif.
We reached this area at 1640. We started looking for lizards at 1650. Before dark we had captured:
Uma scoparia - 8 (2 ad ♂; 3 ad ♀; 3 im ♀)
Urosaurus graciosa - 1 (ad ♂)
Thus, 39 animals of 3 species were captured today in both areas. We also saw 4 recently hatched Uma scoparia this evening. We quit looking for lizards at 1810 (sunset at 1749). We drove 188 miles today. Maximum temp. today was 106°F., minimum temp. today was 81°F. Rain spatters awoke us periodically all night from 2300 on.

Sept. 11

We arose at 0615. We began looking for lizards at 0815, and stopped looking for Uma scoparia at 1050. These animals were very

Sept. 11

Dale Dry Lake area, San Bernardino Co., Calif. spooky today. Many escaped into holes before we could get near them. I don't know whether this change in their reactions of the past few months is due to the time of year, or to the completely overcast sky (with occasional sprinkles) and cool soil. at any rate, they were much spookier this trip than ever before. After eating lunch, we drove to the end of the pavement leading to Rice (started at 1130). We collected several animals along the side of the road. We reached the end of the road at 1515. We had a long way to go to get back to UCR, so decided not to try to collect any animals on the return trip. Thus, our catch today:

Uma scoparia - 10 (4 ad ♂; 5 ad. ♀; 1 im ♂)
Urosaurus graciosa - 1 (ad ♂)
Callisaurus draconoides - 4 (3 ad ♂; 1 ad ♀)
Crotaphytus wislizeni - 1 (ad ♀)
Phrynosoma platyrhinos - 1 (ad ♂)
Cnemidophorus tigris - 2 (1 ad ♂; 1 ad ♀)
Uta stansburiana - 8 (6 ad ♂; 2 ad ♀)

Maximum temp. today was 100°F. We returned to UCR at 1830 after a 164 mile drive today (614 miles for the entire trip).

Sept. 11 Dale Dry Lake area, San Bernardino Co., Calif. Our total catch for the trip was 92 animals of 10 species, as follows:

Uma inornata - 8 (5 ad ♂; 3 ad ♀)
Uma notata - 35 (13 ad ♂; 15 ad ♀; 2 im ♂; 4 im ♀; 1 im ?)
Uma scoparia - 18 (6 ad ♂; 8 ad ♀; 1 im ♂; 3 im ♀)
Callisaurus draconoides - 5 (3 ad ♂; 2 ad ♀)
Urosaurus graciosa - 12 (9 ad ♂; 3 ad ♀)
Crotaphytus wislizeni - 1 (ad ♀)
Phrynosoma platyrhinos - 1 (ad ♂)
Cnemidophorus tigris - 2 (1 ad ♂; 1 ad ♀)
Uta stansburiana - 8 (6 ad ♂; 2 ad ♀)
Coleonyx variegatus - 2 (ad ♂)

Only 1 adult Dipsosaurus dorsalis was seen on the entire trip (at Palm Springs). I was impressed with the small numbers of immature Uma of any species that we saw, & the large number of recently hatched Uma notata we saw, in spite of the very dry year (driest since 1882).

Sept. 14 Lovejoy Butte area, Los Angeles Co., Calif.

Frank Aubrey & I left UCR at 0500, & reached this area at 0645. It was a bit too early for lizards, so we rested in the car until 0730. Then we began to look for lizards. There was a heavy rain here yesterday — puddles are still standing and the surface of the ground is wet. The lady

sept. 14 Lovejoy Butte area, Los Angeles Co., Calif. in the store at Phelan said it was the hardest rain she had seen in the five years she had lived there. a fair number of Sceloporus magister were seen, but they were very wary. We stopped for lunch from 1115 to 1145, then we looked for lizards again. The wind began to blow so hard in this area that we decided to drive up to Blue Ridge to try to catch lizards there about 1300. However, the wind was blowing just as hard there. at 1430, the weather conditions were as follows:

air temp. (30") - 13.0°C.
" " (1cm) - 19.5°C.
soil surface temp. - 27.0°C.
rock surface temp. (in sun) - 30.5°C.
wind - N.W., 10-15 mph.

a number of newly hatched Sceloporus graciosus (17 of them) were seen in spite of the rather rigorous weather conditions that were present. In addition, 8 adult Sceloporus graciosus, one adult Uta stansburiana, & 3 adult Sceloporus occidentalis were also seen here at this time. We left Blue Ridge at 1600. We drove along the angeles Crest Highway a way, then drove to Llano & Phelan by way of Big Pines. We stopped

Sept. 14 Phelan area, San Bernardino Co., Calif. for the night on Beekley Road at the N.W. edge of Phelan at 1830. We drove 208 miles today, after capturing 15 animals of 2 species, as follows:
Sceloporus magister – 11 (5 ad ♂; 3 im ♂; 3 im ♀)
" graciosus – 4 (2 ad ♂; 2 ad ♀)
Maximum temp. today was 85°F. Minimum temp. tonight was 46°F. We were in bed by 2000.

Sept. 15 We arose at 0800, and started looking for lizards at 0900. The weather was rather cool but calm, so we were able to catch several lizards. After looking for lizards in the Phelan area until 1200, we drove south from Llano to try to collect more Sceloporus occidentalis in the foothills. We collected most of them at 4800 ft. At this location we met a fellow that had killed a 3 foot Crotalus viridis about 1030 this morning. He said he saw another one on the road in the same general area yesterday afternoon. We stopped collecting at 1530. Our catch today:
Sceloporus magister – 2 (1 ad ♂; 1 im ♂)
Sceloporus occidentalis – 7 (5 ad ♂; 2 ad ♀)
Uta stansburiana – 5 (3 ad ♂; 2 ad ♀)
Gerrhonotus multicarinatus – 1 (ad)
Thus for the 2 day trip we caught

Sept. 15

Phelan area, San Bernardino Co., Calif. a total of 30 animals, as follows:
Sceloporus graciosus – 4 (2 ad ♂; 2 ad ♀)
Sceloporus magister – 13 (6 ad ♂; 4 im ♂; 3 im ♀)
Sceloporus occidentalis – 7 (5 ad ♂; 2 ad ♀)
Uta stansburiana – 5 (3 ad ♂; 2 ad ♀)
Gerrhonotus multicarinatus – 1 (ad)
While in Lovejoy Buttes area we talked to a fellow that had been digging a well. He claimed he found adult Veromessor at depths of 60 feet. He also claimed he found a live frog (toad?) at 80 feet. We reached UCR at 1650 after driving 92 miles today and 300 miles on the entire trip. all the species found this trip ~~[illegible]~~ seemed to be considerably spookier than they have all summer. It was quite noticeable in several species.

Oct. 11

This morning at 0830 Frank Awbrey, John Ellis & I left UCR for the Mojave Desert. We reached the Phelan area at 0925. The weather was perfect, with just a slight breeze. Sceloporus occidentalis were rather numerous. We had expected many of them to be hibernating by now, but large numbers are still active. The first animal seen was an adult Sceloporus occidentalis. It was seen at 3400 feet at 0915. We left this

Oct. 11 Lovejoy Buttes, Los Angeles Co., Calif. area about noon and drove to Lovejoy Buttes to look for Sceloporus magister. Again we were surprised to find that many of these animals are still active. In fact, they are apparently active throughout the day, once they warm up in the morning enough to get going. We found them still active at sunset. We caught 26 animals today, as follows:

Uta stansburiana - 2 (1 ad ♂; 1 ad ♀)
Sceloporus occidentalis - 10 (5 ad ♂; 5 ad ♀)
Sceloporus magister - 14 (7 ad ♂; 6 ad ♀; 1 im ♀)

We returned to UCR at 1905 after a trip of 169 miles.

Oct. 20 Palm Springs, Riverside Co., Calif.

I left UCR at 0830 this morning to make the monthly collection of Uma inornata. I drove down the old highway from Garnet to 1000 Palms & back to Garnet looking for animals, but I didn't see a single vertebrate of any kind. I reached the collecting area on Vista Chino in Palm Springs at 1005. I began looking for lizards at 1015, but had little luck finding any animals. I saw an adult Cnemidophorus tigris at 1020. At this time the air temp (30") was 32.0°C., air temp. (1cm) was 35.0°C., soil surface temp. was 43.5°C., relative humidity was 13%, S.E. wind, 1-3 mph.

Oct. 20 Palm Springs, Riverside Co., Calif.

Obviously the weather was ideal for reptiles, but none could be found. The first Uma inornata was seen at 1050. It (♀) was captured, but released because it was so small (recently hatched). It had a cloacal temp. of 37.6°C. after a 2' chase. It was sitting in the sun beneath a creosote bush. I stopped looking for lizards at this site at 1315. During this 3 hour period, I caught 4 Uma that I kept and saw a total of 6 others (one of them was the little one that was released). 3 of those seen were young of the year, one was a granddaddy. There were very few Uma tracks on the sand, indicating that few of these animals are still active. All the vegetation at this location is completely dry. Three grasshoppers + 2 flies were the only insects seen. The area simply appeared empty of animal life. I moved around the corner of East View Road to the corner of Via Escuela, where I looked for lizards from 1315 to 1340. (This is 1 block north of East View Road + Vista Chino). The creosote bushes looked quite green in a small drainage at this spot, although more Uma tracks were seen here than at the first location, no animals were seen here except one

It had a very noticeable umbilical scar.

Oct. 20 Palm Springs, Riverside Co., Calif.
Cnemidophorus tigris at 1330. The last Uma seen today was at 1255. I have the feeling that the reptiles in the area are already in hibernation, even though the weather is quite nice for reptiles. I think the lack of food may possibly be the explanation for this condition. At 1345 I left the area and talked to Lloyd Tevis & Dr. J. M. Kolisch at Lloyd's house until 5 PM. Then Lloyd & I drove to UCR's desert station to check on Cal. Tech's mobile lab. I returned to UCR at 1920 after a trip of 172 miles.

Oct. 23 Dale Dry Lake, San Bernardino Co., Calif.
Tonight at 2110 Frank Aubrey, John Ellis and I left UCR for this collecting site. After stopping in 29 Palms for about 20 minutes, we reached our campsite at 2340. We drove 113 miles tonight. The minimum temp. tonight was 64°F.

Oct. 24 We arose at 0730 and ate breakfast. We began looking for lizards at 0825. Three young Uma scoparia were caught to feed to a young king snake first. Then we began collecting in earnest. We collected until 1215. By this time we had captured 25 Uma scoparia and 2 Callisaurus draconoides. We gathered a soil sample from 1230 to 1300, then ate lunch. The vegetation at this location

Oct. 24 Dale Dry Lake, San Bernardino Co., Calif. is quite green at present. a very greenish tinge can be seen in the distance near the base of the Sheep Hole Mts. Palafoxia, Pectis papposa, Allionia carnosa were all in bloom, as was Chrysothamnus sp. The leaves of Larrea divericata were quite green. a number of insects were seen as well. Judging from the number of lizards (Uma scoparia) seen, and the number of tracks seen, these animals have not begun hibernation yet. We saw 5 newly hatched Uma scoparia & 1 newly hatched Callisaurus draconoides. after lunch (1330) we drove east toward Rice on Base Line Highway, capturing 2 more Uma scoparia, 1 Crotaphytus [redacted] wislizeni, 1 Uta stansburiana, and 3 Callisaurus draconoides before we reached the end of the pavement. We drove on toward Desert Center over the 7 miles of dirt road in Riverside Co. to reach the Rice - Desert Center Road. From Desert Center, we proceeded east to Blythe, Ripley, & Palo Verde, which we reached about sundown. Then we drove south over the Palo Verde - Ogilby Road until we reached the pavement 12 miles east of Glamis. The 30 miles of dirt road from Palo Verde wasn't nearly

Journal

Oct. 24 Glamis area, Imperial Co., Calif.
as wash-boardy as the last time we drove over it —— it must have been graded in the meantime. We reached Glamis at 1815 and began to night collect immediately (we had been looking all the way to Glamis, but had seen nothing on the road). During the evening we collected 10 Coleonyx variegatus and 1 young Crotalus cerastes. We camped for the night on top of the big dune 3 miles west of Glamis at 2045. The maximum temp. today was 102°F., the minimum temp. tonight was 74°F. We drove 202 miles today, and caught 48 animals, as follows:
Uma scoparia - 30 (10 ad ♂; 5 ad ♀; 6 im ♂; 2 im ♀; 6 ad? ♂; 1 ad? ♀)
Callisaurus draconoides - 5 (3 ad ♂ 1 ad? ♂; 1 ad ♀)
Crotaphytus wislizeni - 1 (ad ♂)
Crotalus cerastes - 1 (imm)
Coleonyx variegatus - 10 (7 ♂; 3 ♀)
Uta stansburiana - 1 (ad. ♀)
(3 Uma scoparia given away: 2 ♀, 1 ♂)

Oct. 25 We arose at 0800 and ate breakfast. We began to look for lizards at 0910. Tracks & animals were very abundant. There is no indication that Uma notata has begun to hibernate yet. A large number of newly hatched U. notata were running about (I was going to record the number seen, but they were so numerous I soon lost count.)

Oct. 25 Glamis area, Imperial Co., Calif.

By 1140 we had 18 Uma notata, so we returned to the car [redacted] in order to get a soil sample at noon. I've never seen so many Crotalus cerastes tracks as we saw this morning in the dunes. There was at least one set of tracks every 200-300 feet. Two more U. notata were caught just after our soil sampling was finished. We left the area at 1230 + drove to the Highline Canal for lunch. Much of the vegetation in the dunes was quite green. Helianthus nuevius was still in bloom. Quite a few insects were seen also. On the way back to UCR, we stopped in Palm Springs to get another soil sample. The wind was blowing quite hard there. We picked up [redacted] an adult ♀ Phrynosoma platyrhinos at that location. We reached UCR at 1725 after driving 184 miles today, and 499 miles on the entire trip. The maximum temp. today was 104°F. We brought back the following animals (total of 69 animals):

Uma scoparia – 30 (10 ad ♂; 6 ad ? ♂; 5 ad ♀; 1 ad ? ♀; 6 im ♂; 2 im ♀)
Callisaurus draconoides – 5 (3 ad ♂; 1 ad ? ♂; 1 ad ♀)
Crotaphytus wislizeni – 1 (ad ♂)
Uta stansburiana – 1 (ad ♀)
Coleonyx variegatus – 10 (6 ad ♂; 1 ad ? ♂; 2 ad ♀; 1 ad ? ♀)
Crotalus cerastes – 1 (imm.)
Uma notata – 20 (9 ad ♂; 1 ad ? ♂; 3 ad ♀; 2 ad ? ♀; 2 im ♂; 3 im ♀)
Phrynosoma platyrhinos – 1 (ad ♀)

Mayhew
1959

Nov. 8

Lovejoy Butte area, Los Angeles Co., Calif.

Frank Aubrey & I left UCR at 0835 and drove to Phelan. We reached the collecting area near Phelan at 0925. at this time there was no wind & no clouds. The air temp (30") was 17.5°C. No trace of lizards were found in this region that had yielded large numbers of lizards earlier in the year. We drove on to Lovejoy Buttes and Saddleback Buttes with the same success. Then we drove past Black Butte to El Mirage Dry Lake, past the Shadow Mountains to Hi Vista, then back to Saddleback Buttes. although we saw a number of Joshua trees along the way, no lizards were seen on or near any of them. However, there were not enough Joshua trees seen on this side trip to warrent returning to those areas to look for Seeloporus magister again. We retraced our steps back to Phelan, where we learned at the corner store that there had been one frost so far this year (-1.5°C.), but several nights had been down to the 30's and low 40's (F). The maximum temp. today was 23°C (air temp.-30"). The weather was very nice all day, so I feel sure that if lizards weren't out today, they won't be out any more

Nov. 8 — Lovejoy Butte area, Los Angeles Co., Calif. this winter. We left the Phelan area at about 1530 without having seen a lizard all day. We reached UCR at 1630 after a trip of 218 miles.

Nov. 9 — Palm Springs, Riverside Co., Calif.

I left UCR at 0820 to try to collect the monthly sample of Uma inornata. I reached our former collecting site on Vista Chino at 0923. I walked over a fair amount of terrain without seeing any lizards or any tracks. One adult Callisaurus draconoides was seen about 0930, but it was entirely too spooky to be captured. It had rained in this region 8 days earlier & no wind storms had blown in the meantime, so numerous tracks should have been visible if any animals had been active since the rain. However, very few tracks could be found. There were some insect & some mammal tracks, but almost no lizard tracks. The weather was clear & calm. At 0930 the air temp. (30") was 26.8°C. & felt that if lizards are going to be active in that area any time this winter, today would have been one of those days. As I was driving away from the area I saw an adult Uma sunning itself on top of an accretion dune at the

Nov. 9

Palm Springs, Riverside Co., Calif.
base of a creosote bush. I stopped and captured this animal, which was the only Uma I saw in the area. I drove NW of Palm Springs looking for potentially better collecting sites. along highway 111, 3 miles west of Palm Springs + 3 miles south of Whitewater, I found some rather extensive accretion dunes at the base of a hill along the San Gorgonio River channel. I took my soil sample (station III) at this spot. There were a few more lizard tracks than at the previous site, but I saw no lizards while I was there. I was in this area from 1100 to 1200. I spent most of the rest of the day driving around that portion of the Coachella Valley looking for likely collecting sites for next spring. I returned to UCR at 1740 after a trip of 190 miles.

Nov. 13

Dale Dry Lake, San Bernardino Co., Calif.
Tonight at 2020 Frank Aubrey, John Ellis + I left UCR for this collecting site. We arrived at 2230 and set up camp. The minimum temp. tonight was 44°F. The trip was 115 miles long.

Nov. 14

We arose at 0800 and ate breakfast. We didn't begin to look for lizards until 1010 because of the low temperatures. We (first lizard seen at 1100.)

Mayhew
1959

Nov. 14 Dale Dry Lake, San Bernardino Co, Calif.
looked for lizards until 1140. The only lizards seen during that time were 3 young Uroscaurus graciosa in Dalea spinosa in a wash, and 2 Uma scoparia (we caught 1).
We ate lunch from 1140 to 1205, then gathered a soil sample from 1220 to 1235. We again looked for lizards from 1245 to 1335. One young Cnemidophorus tigris was seen and caught, 1 young Callisaurus draconoides (very small) was seen, & 1 adult of Uma scoparia was seen & caught. These were all the lizards seen today. There were some tracks in the sand, indicating some Uma are active yet. However, the numbers of active animals is quite reduced compared to last month. Surprisingly, no young Uma were seen this month at this site. Both bird & mammal tracks (as well as insect) were rather abundant, indicating that both diurnal & nocturnal animals had been active in the area since the last winds. Therefore, the lack of lizard tracks could not be due to their eradication by recent winds. Not more than a dozen tracks, other than those made by the animals we caught, were seen at this site (Uma tracks).
We made a survey of the dominant plant species in the area today.

Nov. 14 Dale Dry Lake, San Bernardino Co., Calif.
The dominant plants in the washes were:
Acacia Greggii
Dalea spinosa
Dalea
Hymenoclea Salsola
In the open areas, the plants were:
Larrea divaricata
Franseria dumosa
Palafoxia linearis
Coldenia plicata
Dicoria canescens (dry)
Oenothera deltoides (dry)
Hilaria rigida (grass)
In addition, numerous annuals are just emerging through the soil. We were unable to identify these.
We left the area at 1340 and drove through the Pinto Mts. in Joshua Tree Natl. Monument to the Algodones Dunes, arriving there at 1730.
Glamis area, Imperial Co., Calif.
We drove down the Brawley - Glamis Road looking for reptiles. The only one found was an adult Crotalus cerastes that had just been hit by a car.
We stopped looking at 1900 and set up camp 2 miles east of Glamis (our spot on Dune Crest Drive was occupied).
Maximum temp. today was 82°F., minimum temp. tonight was 57°F. We drove 202 miles today.

Nov. 15

Glamis area, Imperial Co., Calif.

We arose at 0745 and ate breakfast. We began looking for lizards at 0935 in an area 1 mile west of Glamis. An adult Uma notata was seen immediately. another was seen at 1020, but these were the only 2 seen in this location before we left it at 1030. The major plants at this location were:

Olneya tesota
Cercidium floridum
Chilopsis linearis
Larrea divericata
Eriogonum deserticola
Oenothera deltoides (dry)
Dicoria canescens (dry)

We drove to our old collecting site 5 miles west of Glamis and began immediately to look for lizards.

The dominant plants in this location are:

Ephedra sp.
Dicoria canescens (dry)
Croton californicus
Eriogonum deserticola
Petalonyx thurberi
Coldenia plicata
Helianthus niveus (has been in bloom every month that we have been here).

There are many annuals just emerging from the soil, especially at the bottom of hollows in the dunes.

Nov. 15

Glamis area, Imperial Co., Calif.

We looked for lizards here from 1035 to 1310, took soil samples from 1310 to 1325, then looked for lizards until 1345. We caught a total of 18 animals today, 2 of which were released + one was kept for a little girl to take to school. Therefore, we had a sample of 15 for ourselves. Those captured were:

Uma notata – 12 (1 ad ♂; 2 ad ? ♂; 2 ad ♀; 4 im ♂; 3 im ♀) (released)
Urosaurus graciosa – 3 (1 ad ♂; 2 ad ♀)
Coleonyx variegatus – 2 (1 ad ♂) (1 im released)
Cnemidophorus tigris – 1 (im) (for little girl)

As we caught only 2 Uma scoparia (1 ad ♂; 1 ad ? ♀) yesterday, we captured only 20 animals on the trip.

There were many young Uma notata running around, but we didn't feel we needed any more of them, so we didn't attempt to capture them. There were lots of Uma notata tracks on the dunes, but by far the majority of them were made by young animals.

We ate lunch from 1345 to 1420, then started for home at 1430. However, we stopped for nearly an hour between the Coachella Canal & Highline Canal to look at the annuals that are coming up there. The most numerous is Palafoxia linearis, the next most numerous at the moment is Pectis papposa.

Nov. 15

Glamis area, Imperial Co., Calif.
A few desert lilies (Hesperocallis undulata) are 8-10 inches above the ground. Several Abronia villosa are 6-10 inches in diameter already. One had a complete head in bloom, while 2 others had 2 or 3 flowers in bloom, but no large head of blossoms yet. There was also a plant that looked like a Tribulus, but all the specimens were too small for definite identification. In addition, there were hundreds of annuals just coming through the soil. There was much more moisture in the soil here than we had found in the dunes at our sampling site (~7 miles further east). Moisture first became obvious 2½-3 in. beneath the surface. It was still abundant at 25 inches, which is as far as we dug. There appeared to be plenty of moisture to permit these annuals to complete their life cycle. This area is creosote bush scrub that receives run-off from the road and from the small ridges east + west of this location. It may also receive moisture as seepage from the dirt-lined canals on each side. We continued to UCR, arriving at 1810 after driving 175 miles today (492 miles for the trip). Maximum temp. today was 80°F.

Dec. 7

Deep Canyon Res. Station, Palm Desert, Riverside Co., Calif.

This morning I took Mr. Sol Lesser, movie producer and major owner of Silver Spur Ranch, Mr. Ernest Alschuler, Vice-President of the Palm Springs Desert Museum, and Mr. Adrian Schwilk, manager of Silver Spur Ranch, up to the entrance of Deep Canyon to explain what the University of California has planned for the area. All of them seemed to be favorably impressed with our plans. Mr. Lesser wants a meeting with Mr. Philip Boyd to discuss what they can do to assist the University of California in furthering the University's goals in that area. I expected to see work in progess on the fence, but nothing has been started yet. I left the Silver Spur manager out at Silver Spur Ranch, and took Mr. Lesser and Mr. Alschuler back to Palm Springs. After eating lunch with Mr. Alschuler at his home, I drove west of Palm Springs to get my monthly soil sample. The soil was fairly damp several inches beneath the surface, but not for any distance. No Ursus inornatus were seen, nor were any of their tracks seen.

Dec. 11 Dale Dry Lake, San Bernardino Co., Calif.

Frank Aubrey & I left UCR at 2055 tonight and drove to our campsite near the lake bed, arriving at 2315. The air was clear and cold, with no wind. The minimum temp. tonight was 39°F. We drove 112 miles tonight.

Dec. 12 We arose at 0900. The temp. at that time was 48°F. The sky contained a few cirrus clouds. There was no wind. It appears to have rained very recently since the surface of the soil is still moist, and there are pools of water occasionally standing beside the road. Many of the creosote bushes look in good condition with lots of leaves. A large number of annuals are through the ground, but few of them are over one inch in height. One has to step very carefully to keep from stepping on newly sprouted annuals, and in some locations one can't walk without stepping on some. A number of species appear to be present, but I'm not good enough at identifying newly sprouted plants to tell what more than a couple are. Palafoxia linearis & Hesperocallis undulata, Oenothera deltoides, & Hoffmanseggia densiflora (?) were the only ones that Frank & I could identify. Palafoxia & Hoffmanseggia were the only ones we found in bloom. Palafoxia seems to be the most numerous annual at this location.

Dec. 12

Dale Dry Lake, San Bernardino Co., Calif.

By 1115 the weather had warmed sufficiently we felt it might be worthwhile to look for lizards (air temp. [30"] - 58°F., relative humidity - 46%). Therefore, we drove to our soil sampling site, obtained our soil samples, & began to look for lizards. We looked for lizards from 1130 to 1230 without seeing a trace of one. Not even any tracks of lizards were seen. This indicated that none of the animals had been active since the recent rain, since bird and mammal tracks were seen, even though the sand was still quite moist on the surface. Uma scoparia weighs about as much as small fringillids (ex: ~~house~~ house finch), so the tracks of one should have been as obvious as those of the other. Nevertheless, no reptile tracks were seen. The day was calm and clear, so if the animals weren't active that day they weren't apt to be on more inclement ones. Maximum temperature of air (30") recorded here today was 62°F. It seems obvious all the reptiles are hibernating for the winter. After eating lunch, we drove to a spot 18 miles east of 29 Palms where we collected several species (13) of plants that were in bloom:

Dec. 12

18 mi. E. of 29 Palms, San Bernardino Co., Calif.

Baileya pleniradiata
Stillingia spinulosa
Lupinus sparsiflorus
Brandegia bigelovii
Cryptantha sp.
Oenothera claviformis
Oenothera deltoides
Physalis crassifolia
Calyptridium monandrum
Nicotiana trigonophylla
Perityle emoryi
Dalea mollis
Hilaria rigida

These plants (most of them) were growing in a low spot that was full of water when we were here last month. Many more plants are growing here, but have not matured enough to flower yet. We drove on through Joshua Tree National Monument, where we saw Lesmeris arborea, and Datura meteloides in bloom. When we drove through Box Canyon on Highway 195, we saw Cercidium floridum, Eriogonum fasciculatum, Eriogonum inflatum, Eriogonum plumatella, Eriogonum thomasii, Fouquieria splendens, Encelia farinosa, Stephanomeria pauciflora, Hyptis Emoryi, Lotus scoparius, Lesmeris arborea, and Beloperone californica all in bloom. We reached the Glamis area at 1800, when the air temp. was 13.6°C. (56°F.). Consequently, we found no reptiles on the road, even though we drove slowly and looked for them.

Dec. 12 Glamis area, Imperial Co., Calif.

We camped at 1825, after driving 188 miles today. The minimum temp. tonight was 44°F.

Dec. 13 We arose at 0715 because the wind was beginning to blow sand around. We ate breakfast, then gathered our soil samples. From 0900 to 0950 we looked for lizards, but saw no trace of any. However, as at Dale Dry Lake, tracks of mammals (rodents), passerine birds, & even Eleodes were seen, but no reptile tracks. The weather was so cool today, even though the sun was shining brightly, that there is no reason to expect the animals to come out all day long. The maximum temp. we recorded in this area was 14°C. (57°F.). About 1000 thick clouds began to appear in the north, so we knew there was no use waiting for animals to come out. We left the area at 1000. By 1015 the sky was almost completely overcast. A strong wind was blowing out of the west between Kane Springs and Salton Riviera, and heavy black clouds were over Salton Sea. By the time we reached Desert Shores, the wind had changed and was blowing out of the east. It rained very hard as we drove through Indio. Some sleet fell on us in the same area.

Dec. 13

Glamis area, Imperial Co., Calif.

However, before we left the Glamis area, we stopped to collect some plants that were in bloom between the canals. We had seen Helianthus niveus and Castor californicus in bloom at our collecting site in the dunes, but we hadn't collected any. We found 8 species in bloom between the canals, most of which we collected. They were: Pectis papposa, Palafoxia linearis, Abronia villosa, Oenothera claviformis, Stillingia spinulosa, Dalea emoryi, Baileya pauciradiata, and Mentzelia puberula.

The snow line from today's storm was about 4000 ft. in the Santa Rosa, San Jacinto, and Little San Bernardino Mts. by the time we reached that area. We stopped at Pine Cove for a few minutes on the way home. About an inch of snow had fallen there during the morning, but the sun was shining brightly while we were there. Nevertheless, we recorded an air temp. (30") of −0.5°C. (31°F.) in the sunshine at 1400.

We reached UCR at 1605 after driving 211 miles today, and 511 miles on the entire trip.